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FM 55-1

FIELD MANUAL

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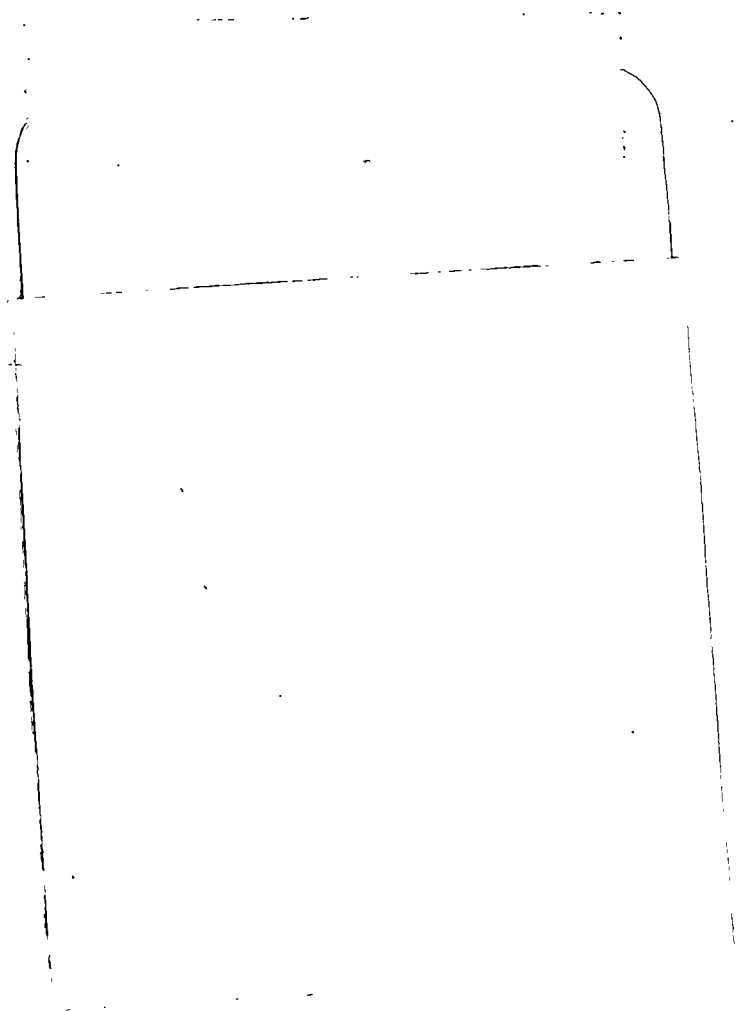
ARMY TRANSPORTATION SERVICES

IN A

THEATER OF OPERATIONS

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HEADQUARTERS, DEPARTMENT OF THE ARMY
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FOREWORD

1. This manual provides guidance for the establishment and operation of an assistant chief of staff (ACS), movements, staff section or a staff transportation section in various headquarters units. It promulgates transportation doctrine and organizational structure developed by the study, "The Administrative Support, Theater Army, 1965-70 (TASTA-70)."
2. The major changes resulting from TASTA-70 are as follows:
 - a. Changes in organizational structure of transportation movement control units and terminal, railway, and motor transport headquarters units.
 - b. Establishment of a transportation command headquarters for command and supervision of units employed in the communications zone transportation service.
 - c. Establishment of a transportation composite group for command and supervision of transportation service in support of independent or separate division forces.
3. The manual also includes a short discussion of the theater army command organizational and territorial structure and includes as appendixes sample formats for a transportation plan, a transportation annex to an administrative/logistic order, and a standing operating procedure for an ACS, movements, or a transportation staff section.
4. Chapter 3 provides personal type guidance to the ACS, movements, or staff transportation officer to assist him in performing his staff functions.
5. Chapter 4 through 9 discuss capabilities and major task equipment of transportation units.



FIELD MANUAL }
No. 55-1

HEADQUARTERS
DEPARTMENT OF THE ARMY
WASHINGTON, D.C., 2 September 1971

ARMY TRANSPORTATION SERVICES IN A THEATER OF OPERATIONS

	Paragraph	Page
CHAPTER 1. INTRODUCTION (STANAG 2079)		
Section I. General	1-1-1-3	1-1
II. Theater Army Command Structure	1-4-1-9	1-2
CHAPTER 2. THEATER ARMY TRANSPORTATION SERVICES (STANAG'S 2084 AND 2117)		
Section I. General	2-1-2-3	2-1
II. Transportation Composite Headquarters Units	2-4-2-8	2-8
III. Transportation Management Services and Mode Operations	2-9-2-13	2-13
IV. International Standardization Agreements	2-14-2-15	2-16
CHAPTER 3. TRANSPORTATION STAFF DUTIES, FUNCTIONS, AND LOCATIONS (SOLOG's 27R AND 31R)		
Section I. General	3-1-3-3	3-1
II. Staff Transportation Functions and Responsibilities	3-4-3-6	3-3
III. Location of Assistant Chief of Staff, Movements, and Transportation Staff Sections	3-7-3-14	3-5
IV. Principles of Movements (Transportation)	3-15-3-19	3-6
V. Transportation Planning	3-20-3-27	3-7
CHAPTER 4. TRANSPORTATION SERVICE MOVEMENTS MANAGEMENT AND HIGHWAY REGULATION (STANAG'S 2025, 2041, 2151, 2154, 2155, 2156, 2159, 2164; SOLOG'S 27R, 31R, 50R)		
Section I. Introduction	4-1-4-2	4-1
II. Movement Control Units	4-3-4-6	4-3
III. Movement Control Center Operations	4-7-4-12	4-6
IV. Highway Regulation	4-13-4-17	4-10
CHAPTER 5. MOTOR TRANSPORT SERVICE	5-1-5-16	5-1
6. RAIL TRANSPORT SERVICE	6-1-6-9	6-1
7. AIR TRANSPORT SERVICE	7-1-7-5	7-1
8. WATER TRANSPORT SERVICE	8-1-8-8	8-1
9. TERMINAL SERVICES	9-1-9-8	9-1
10. SUPPORT OF TRANSPORTATION SERVICES	10-1-10-10	10-1
APPENDIX A. REFERENCES	A-1-A-7	A-1
B. INDEX OF TRANSPORTATION-RELATED INTERNATIONAL STANDARDIZATION AGREEMENTS		B-1
C. SAMPLE TRANSPORTATION PLAN AND ANNEX AND OUTLINE FOR PREPARING A STANDING OPERATING PROCEDURE FOR AN ASSISTANT CHIEF OF STAFF, MOVEMENTS, AND A TRANSPORTATION STAFF SECTION	C-1, C-2	C-1
Index		Index-1



CHAPTER 1

INTRODUCTION

(STANAG 2079)

Section I. GENERAL

1-1. Purpose and Scope

a. This manual provides a general guide for and is a handbook to assist the assistant chief of staff, movements, and staff transportation officers at all levels of command in familiarizing themselves with their duties and functions and with principles of transportation, mode-of-transport organizations and operations, movements management, and transportation terminal operations. The manual also presents a brief discussion of the theater army, the theater army support command (TASCOM), and the field army support command (FASCOM).

b. The manual discusses the organization and functions of three major transportation headquarters units that command varied type transportation units: the headquarters and headquarters company, transportation command (TOE 55-2), employed in the communications zone; the headquarters and headquarters company, transportation brigade (TOE 55-62), employed in FASCOM and in a corps support command (COSCOM); and the headquarters and headquarters company, transportation composite group (TOE 55-52), employed in support of independent division operations.

c. For commanders and staffs at all levels, this manual provides requirements for and a guide to the establishment of staff transportation sections within their organizations and theater transportation services.

d. International agreements (SOLOG's, STANAG's, SEATO's, etc.) that apply to transportation services in a theater of operations are discussed in paragraphs 2-14 and 2-15.

e. This manual is applicable to—

(1) General war, to include consideration of employment of and protection from nuclear and

chemical weapons and protection from enemy use of biological agents or weapons.

(2) Limited war.

(3) Cold war, to include stability operations.

1-2. Review Components

Users of this manual are encouraged to submit recommended changes and comments to improve the publication. This manual combines transportation doctrine with procedural data. Readers or reviewers should key their comments to the specific page, paragraph, and line of the text in which the change or addition is recommended. Reasons will be provided for each comment to assure understanding and complete evaluation by the proponent agency. Comments should be submitted on DA Form 2028 (Recommended Changes to Publications) and forwarded direct to the Commanding Officer, US Army Combat Developments Command Transportation Agency, Fort Eustis, Virginia 23604. Comments will be accepted in letter format if DA Form 2028 is not available. Originators of proposed changes or additions to the manual that may constitute a significant modification of approved Army doctrine may send an information copy through command channels to the Commanding General, US Army Combat Developments Command, Fort Belvoir, Virginia 22060, to facilitate review and followup.

1-3. Definition

a. The *assistant chief of staff (ACS), movements*, is a general staff officer position in the headquarters of TASCOM, FASCOM, and the corps support brigade. This position, created in 1966 by the study, The Administrative Support, Theater Army, 1965-70 (TASTA-70), has the same functions as the former staff transportation officer. In fact, the terms assistant chief of staff, movements; staff transportation officer; transpor-

tation staff officer; and transportation officer as used throughout this manual refer interchangeably to a separate staff section for transportation functions assigned to a headquarters or subordinate to the G4 or director of services staff elements. For a delineation of the functions of the ACS, movements, position, see chapter 3.

b. Movements management refers to functions performed by staff transportation officers and transportation movement control units or teams of a command. It encompasses planning, coordinating, programing, and monitoring the allocation and use of available transportation resources in accomplishing the commander's movement requirements, to include highway regulation functions. FM 55-10, Army Transportation Movements Management, contains a detailed discussion of movements management.

c. Movement control is the planning, routing, scheduling, and control of personnel and supply movements over lines of communication; also an organization responsible for these functions.

d. Traffic management is the direction of functions incident to effective and economical procurement and use of passenger and freight (military and commercial) transportation services.

e. Mode operations is a collective term used to indicate operations of one or more transport modes (highway, rail, water, and air) within the theater of operations.

f. Terminal operations include command and

control of Army operations at water terminals (established ports, beaches, and inland waterways), air terminals (Air Force and Army), in-transit areas, and mode or means transfer points.

g. Throughput is the shipment of supplies from points of origin (normally terminals or depots) as far forward into the combat zone as possible, bypassing one or more intermediate supply activities. Rehandling and transshipment (transferring) at intermediate locations within the transportation system are avoided whenever possible. This system of distribution tends to make such facilities as ports, beaches, depots, and transfer points less lucrative targets for nuclear attack.

h. Inventory in motion is a term used to identify a revitalized and integrated supply and transportation management concept which has as its ultimate goal nonstop supply support direct from the continental United States (CONUS) to the direct support level. It is intended to provide better support at less expense by reducing stocks of supplies on the ground and reducing related storage costs through greater asset visibility and control.

i. The logistics intelligence file is an automated data bank of theater- and CONUS-initiated supply actions and related CONUS supply and transportation data maintained at the logistics control office. Through integration of the MILSTRIP/MILSTAMP¹ information, the file provides visibility and flexibility for control of supplies in the pipeline.

Section II. THEATER ARMY COMMAND STRUCTURE

1-4. Theater of Operations

a. Within a theater of operations, US Army forces are employed under a unified command. The theater commander organizes the command and administrative structure of the unified command and exercises operational command over all assigned forces. He exercises operational command through service component commanders by establishing subordinate unified commands or joint task forces, by establishing a uniservice force reporting directly to him, or by directly controlling specific operational forces. The theater commander exercises directive authority within his command in the field of logistics.

b. The theater commander controls all the means within the theater of operations for com-

bat, combat support, and combat service support and directs them toward accomplishment of his mission. The theater of operations is normally divided into a combat zone and a communications zone (COMMZ) (fig. 1-1) although the operational situation, especially in limited and cold war, may not permit a clear delineation. A COMMZ is established when control of the theater base by the tactical commander becomes impractical. FM 100-10 provides a detailed discussion of the territorial organization of a theater.

(1) *Combat Zone.* The combat zone is that part of the theater of operations that the combat forces need to conduct operations. It includes the

¹ MILSTRIP is the acronym for military standard requisitioning and issue procedures as set forth in AR 725-50 and MILSTAMP for military standard transportation and movement procedures as set forth in DOD Regulation 4500.32-R.

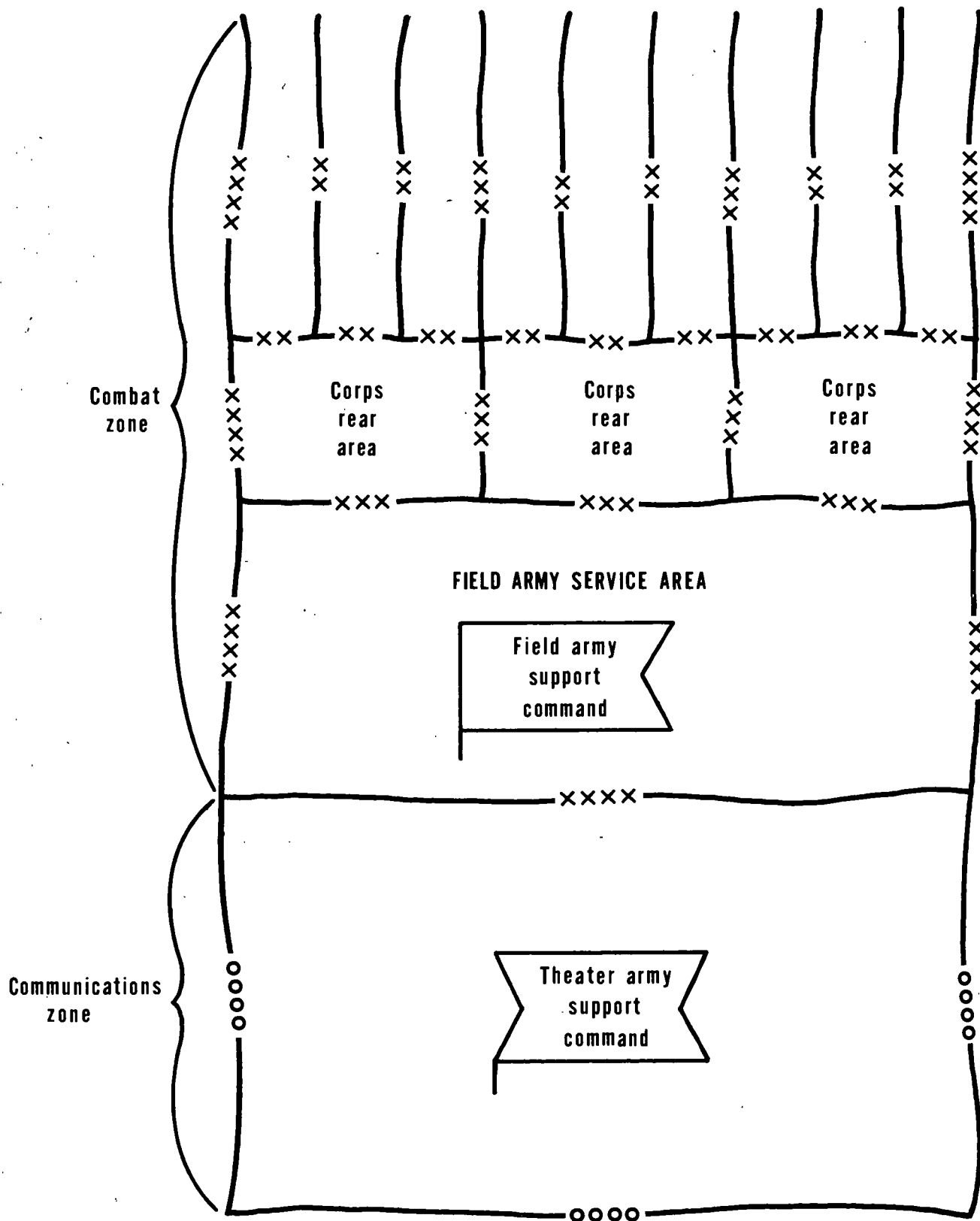


Figure 1-1. Territorial organization of a theater of operations.

geographical area extending from the rear boundary of the field army into enemy-controlled territory. For tactical control it may be divided into a field army area, corps areas, and divisions areas, each including service areas.

(2) *Communications zone.* The COMMZ encompasses the rear area of the theater of operations (behind the combat zone and contiguous to it) containing the lines of communication established for supply and evacuation and the organizations required for immediate support and maintenance of the field forces. The COMMZ combat service support organization can shift its alignment to intensify support along the lines of communication of the decisive tactical action.

1-5. Theater Army

a. General. The theater army commander is responsible for broad plans and policies for all US Army forces in the theater and for command of all US Army forces assigned to his command. Figure 1-2 shows the basic elements of a typical theater army. The theater army commander exercises command through the commanders of assigned major subordinate elements. He normally exercises full command of assigned forces during peacetime but passes operational control of selected forces to the unified commander in wartime. If he is in the operational chain of command and is assigned an operational mission, the theater army commander carries out the strategic plans and instructions of the unified command and provides for and deploys US Army forces in support of tactical operational requirements. In this case his responsibilities include but are not limited to operations, training, administration, combat service support, warfare preparedness, and combat effectiveness of assigned Army forces and support of other forces as directed. The theater army commander is primarily an organizer, supervisor, planner, and coordinator who, when in the operational chain of command, decentralizes combat and combat service support operations to his subordinate field army (or armies) and theater army support command (TASCOM) commanders. He normally retains under his control only the minimum forces and agencies required to perform theaterwide sensitive and specialized functions such as technical intelligence production and chemical laboratory services. Geographic responsibility of the theater army commander is normally assigned to field army and TASCOM commanders in accordance with unified or combined command opera-

tional arrangements. The theater army commander formulates plans for wartime release to the theater commander of operational control of those combat and support forces required by the theater commander to accomplish the combat operational mission. During wartime, the theater army commander is primarily concerned with combat service support.

(1) Field armies and TASCOM are on the same level under theater army. The commanders of these organizations are assigned combat service support means required to perform their respective missions in the combat and communications zones, subject to policy guidance and directives of the theater army commander. Dependent upon the desires of the theater army commander, an army group headquarters may be established when two or more field armies are deployed.

(2) The theater army commander retains control of combat service support operations to insure uniform support in the combat and communications zones. He exercises control by establishing appropriate policies, assigning missions, allocating resources, and establishing priorities. Headquarters, theater army, normally delegates authority and responsibility for conducting combat service support operations to TASCOM and the field army. This includes delegation of authority and responsibility to TASCOM for direct (throughput) shipments originating in the TASCOM area and going to users in the field army.

b. Field Army. The field army is the highest tactical command level having an organic capability to provide its own combat service support. The field army is located in the combat zone. It directs the combat operations of assigned forces and provides the necessary combat support and combat service support. Field army consists of a headquarters; a field army support command (FASCOM), to which nondivisional combat service support troops are assigned; and a variable number of corps, divisions, and other combat and combat support units. FM 100-15 contains a detailed discussion of the field army. FM 54-3 contains a detailed discussion of the FASCOM.

c. Theater Army Support Command.

(1) TASCOM provides combat service support in the COMMZ to Army forces and other designated forces and activities. Support provided includes general support to the field army, direct and general support in COMMZ, responsibility for rear area protection in COMMZ, and participation in stability operations within COMMZ.

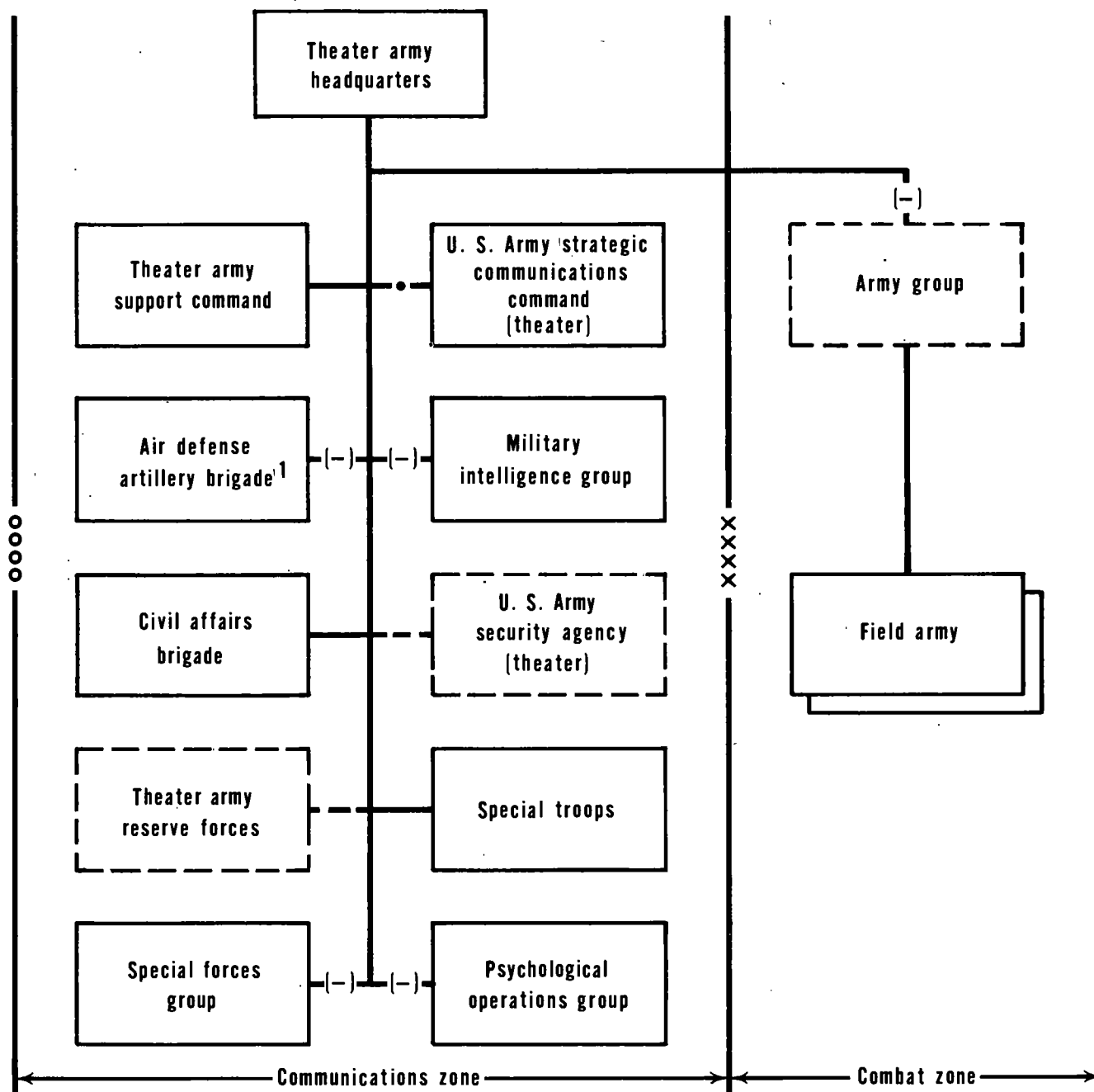


Figure 1-2. Typical organization of a theater army.

In addition, the theater army commander assigns to TASCOM the responsibility for area emergency warning in COMMZ.

(2) TASCOM normally consists of six major subordinate commands: personnel, materiel, engineer, transportation, medical, and area support (fig. 1-3). The first five commands provide combat service support to the theater army and other forces and activities as TASCOM directs. The sixth, the area support command (ASCOM), provides direct support services (less medical and ammunition) to TASCOM, to units passing through or located in COMMZ, and to such other forces and activities as the TASCOM commander directs. The ASCOM combat service support units are organized and oriented along lines of communication to conform to the needs of the TASCOM subordinate commands that provide general support combat service support to the theater army.

d. US Army Strategic Communications Command (Theater). The US Army strategic communications command (USASTRATCOM) (theater) provides and operates the theater army communications system under the operational control of the theater army commander. This system links the organic tactical communications systems of the major theater army maneuver force (army group, field army, independent corps, or division) to the theater army headquarters and the defense communications systems. USASTRATCOM (theater) provides the link between the communications systems of the defense communications system, the COMMZ, and the senior tactical maneuver force or forces to achieve an integrated worldwide communications system. USASTRATCOM (theater) provides, on an attachment basis, the signal operation companies (large, medium, or small headquarters), which operate the internal headquarters communications of selected combat service support organizations throughout the COMMZ. The USASTRATCOM (theater) commander also serves as the assistant chief of staff for communications-electronics of the theater army. USASTRATCOM (theater) consists of a headquarters and a variable number of signal companies, battalions, and groups. The number and types of units depend on the mission and size of the theater of operations. FM 11-23 discusses the communications subsystems that USASTRATCOM (theater) establishes.

e. Air Defense Artillery Brigade. The air defense artillery brigade provides the Army com-

ponent commander with a means of exercising command, less operational control in wartime, of all theater army air defense units not assigned or attached to field armies or army groups. Normally, the Air Force component commander is assigned operational command of the air defense artillery brigade. FM 44-1 contains a detailed discussion of the air defense brigade.

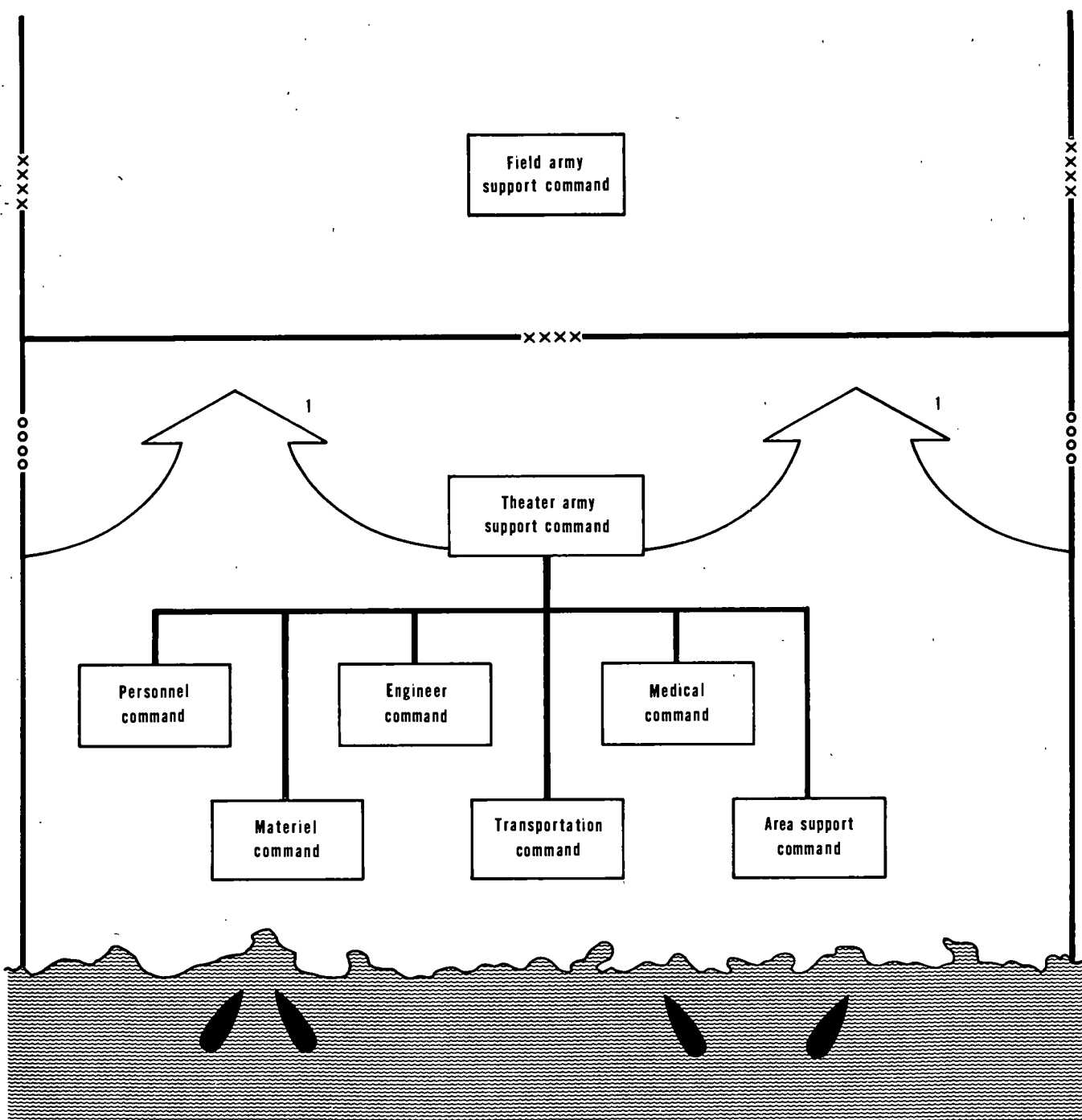
f. Military Intelligence Group, Theater Army. The military intelligence group, theater army, operates in direct support of headquarters, theater army, and in general support of the military intelligence battalion assigned to field army and the military intelligence group, security, assigned to ASCOM. It also assists in performing those intelligence activities for which the theater army headquarters retains centralized control. FM 30-9 discusses intelligence units in detail.

g. Civil Affairs Brigade.

(1) The theater army commander conducts civil affairs operations as directed by the theater commander. The theater army commander may be delegated civil affairs authority for the COMMZ or for the theater.

(a) When the theater commander retains civil affairs authority, he may establish a theater civil affairs command to formulate plans, procedures, and programs for civil affairs command to formulate plans, procedures, and programs for civil affairs operations in conformity with guidance of higher authority.

(b) Should the theater commander desire to delegate civil affairs authority, he normally delegates authority for the combat zone and the COMMZ to the theater army commander when the theater army headquarters is in the operational chain of command (as is the usual case in peacetime). In this event, the theater army commander normally further delegates civil affairs authority for the combat zone to the field army or army group and for the COMMZ to TASCOM commanders, with the TASCOM commander usually delegating authority in turn to the ASCOM commander. When the theater army headquarters is not in the operational chain of command (as is the usual case in wartime), the theater commander may still desire to delegate civil affairs authority, in which case he normally delegates authority for the combat zone to the field army (army group) commander and for the COMMZ to the theater army commander. In this event, civil affairs authority in the COMMZ is normally further delegated to the TASCOM and ASCOM



LEGEND:

- Command
 --- As required

¹General support combat service support to the combat zone.

Figure 1-3. Organization of the theater army support command.

commanders in turn. In any case when civil affairs authority for the COMMZ has been delegated to them, the theater army and TASCOM commanders may retain this authority, but usually it is given to the ASCOM commander and not further delegated.

(2) The usual civil affairs organization employed in the COMMZ is the civil affairs brigade. Normally allocated on the basis of one per COMMZ, it is assigned or attached to a theater army.

(3) FM 41-10, FM 100-10, and FM 100-15 contain further information concerning civil affairs organizations and activities.

h. US Army Security Agency (Theater). The US Army security agency (USASA) (theater) is a major field command of the Commanding General, USASA, which provides support to the theater army headquarters and subordinate elements thereof in the mission area fields prescribed in AR 10-122. The structure of USASA (theater) forces attached to headquarters, theater army, varies according to the size, mission, and support requirements of the theater army. In the typical theater army structure, a subordinate USASA group is normally attached to each field army.

i. Theater Army Reserve Forces. The theater army reserve forces consist of those combat units in the COMMZ designated as the theater army reserve forces.

j. Other Major Army Units Assigned or Attached to Theater Army. The theater army may include other specialized units as required, such as special troops, a special forces group, and a psychological operations group.

1-6. Theater Army Support Command Structure

a. Mission. TASCOM provides combat service support to Army forces in a theater of operations and to other designated forces. Support includes—

- (1) General support to the field army.
- (2) Direct and general support in the COMMZ.
- (3) Rear area protection in the COMMZ. In addition, the theater army commander assigns to TASCOM responsibility for area emergency warning in the COMMZ.

b. Functions. Combat service support functions performed by TASCOM include assistance provided to operating forces primarily in the

fields of those services defined for combat service support in AR 310-25.

c. Organization.

(1) In addition to the organizations shown in figure 1-1, TASCOM supports the following forces:

(a) US Army elements of joint, unified, or combined headquarters and units as directed.

(b) Other US Army units located in or passing through the COMMZ.

(c) Other US services, US Government agencies, allied military forces, and civilian populations designated by the commander of the unified command or by the theater army commander.

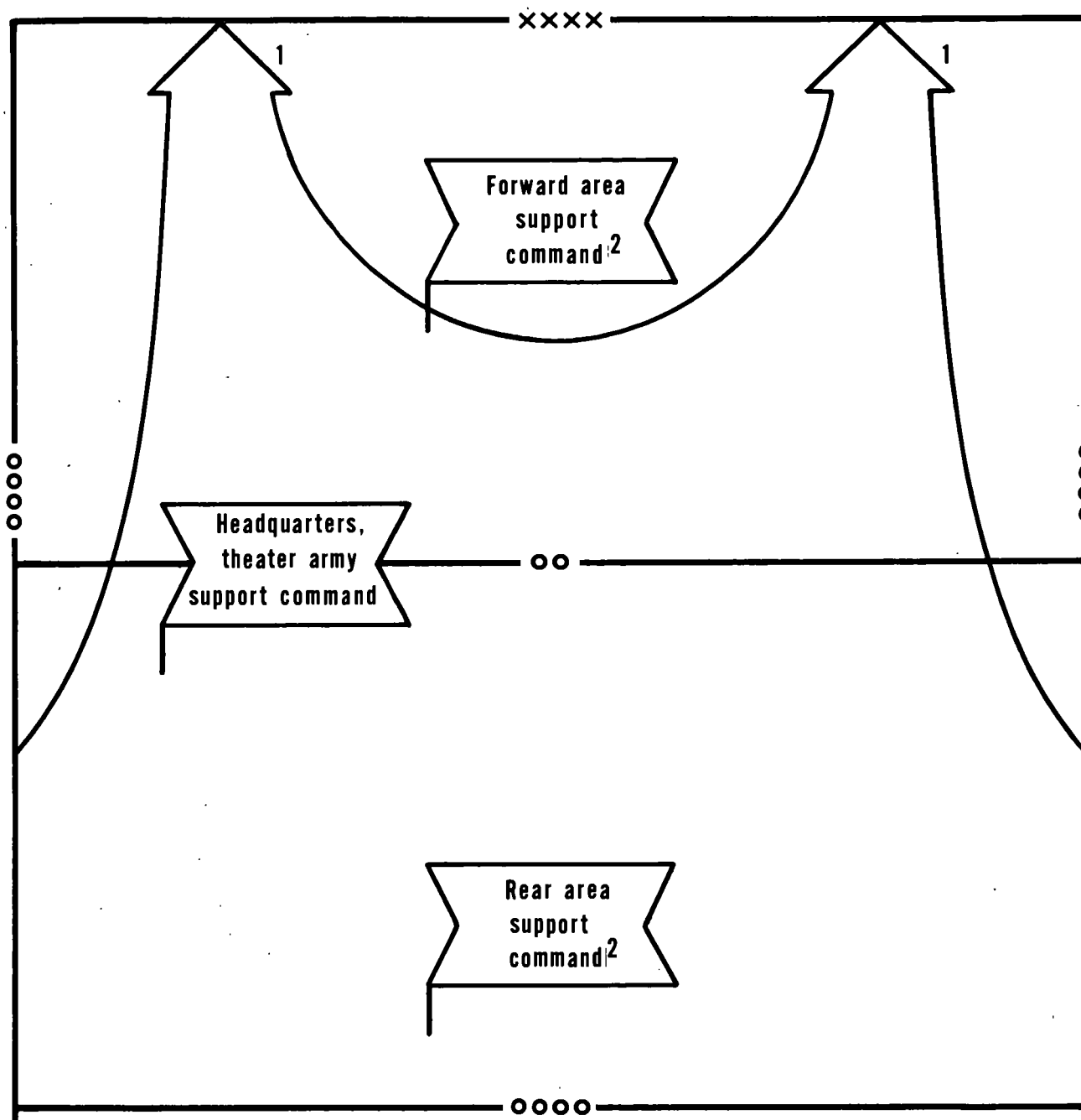
(2) A TASCOM is normally organized with the following major subordinate commands (fig. 1-3):

- (a) Personnel command (PERSCOM).
- (b) Materiel command (MATCOM).
- (c) Engineer command (ENCOM).
- (d) Transportation command (TRANSCOM).
- (e) Medical command (MEDCOM).
- (f) Area support command (ASCOM).

(3) The TASCOM commander's area of responsibility includes the entire COMMZ. The TASCOM commander delegates the authority and area responsibility for the COMMZ to the ASCOM commander. The ASCOM commander further assigns area responsibility to his subordinate area support group commanders. The TASCOM organization is adaptable to any size theater. In a small theater, combat service support groups may constitute the TASCOM subordinate commands. As the theater expands, the subordinate commands enlarge; however, the basic organization of the subordinate commands remains unchanged. If the COMMZ is extremely large, the TASCOM commander may provide for two ASCOM's (a forward and a rear) to carry out area responsibilities within their assigned portions of the COMMZ (fig. 1-4).

d. Command Relationship of TASCOM with Theater Army Headquarters and Subordinate Units of Theater Army.

(1) *With theater army headquarters.* The theater army headquarters commander provides mission orders, consistent with his command authority, to field army, TASCOM, and other theater army units for theater army activities, together with necessary policies, priorities, allocations, directives, and guidance to permit the



¹General support combat service support to the combat zone provided by the other TASCOM commands.

²Direct support to units within area of responsibility.

Figure 1-4. A communications zone with two area support commands under the theater army support command.

major commands to execute assigned missions. Theater army headquarters provides procedures and guidance for the establishment of appropriate channels of communications between TASCOM

and the continental United States (CONUS), other services, allied forces and governments, and field army. Headquarters, TASCOM, communicates directly with CONUS agencies and the field

army on operations within policies of the theater army headquarters. The theater army commander may assign the TASCOM commander responsibility for preparing detailed combat service support plans, directives, and guidance influencing the theater army as a whole. On approval by theater army headquarters, such plans, directives, and guidance are issued in the name of the theater army commander. The TASCOM commander, when delegated authority, may issue technical instructions to, and conduct technical inspections of, supported units of the theater army. He may further delegate authority to major subordinate commanders to issue these technical instructions and perform inspection functions. FM 101-5 discusses types of plans and orders.

(2) *With theater army headquarters on its assumption of TASCOM headquarters functions.* Theater army headquarters in wartime may assume the TASCOM function of planning and coordinating combat service support within the COMMZ. Theater army headquarters issues mission orders to its major subordinate assigned units and provides procedures and guidance for establishment of appropriate channels of communication between Department of the Army, unified command headquarters, army group or field army, and the major subordinate commands within the COMMZ. Theater army headquarters' assumption of direction of the combat service support mission in the COMMZ does not change the established working relations for routine combat service support operations involving direct and continuous contact between the TASCOM subordinate commands and the forces and activities they support. TASCOM major subordinate commands are designed to operate with minimum direction from a higher headquarters. Staff functions for day-to-day combat service support operations are accomplished by the headquarters of the subordinate commands. Theater army general staff sections may require personnel increases in those staff elements concerned with combat service support operations throughout the theater army and with rear area protection operations within the COMMZ.

(3) *With field army.* Regardless of the support command structure within theater army, TASCOM or some other support organization must receive and fill support requirements from the field army. Field army and TASCOM are on the same level under theater army. For routine operations, FASCOM and TASCOM subordinate commands maintain continuous working

relationships through liaison and technical channels.

(4) *With USASTRATCOM.* USASTRATCOM (theater) provides a command communications subsystem and an area communications subsystem within the COMMZ. USASTRATCOM (theater) attaches signal operations companies (medium or small headquarters) to selected headquarters within TASCOM to operate the internal headquarters communication. TASCOM provides direct and general support combat service support to USASTRATCOM (theater) in accordance with the support agreement established between USASTRATCOM and theater army commanders. TASCOM is responsible, as the theater army commander directs, for the overall physical security of USASTRATCOM (theater) facilities although this does not relieve local USASTRATCOM (theater) installation commanders from the responsibility for providing their own security within their capabilities.

(5) *With civil affairs brigade.* The civil affairs brigade is a major subordinate element of theater army. It receives from theater army policy and guidance which it translates into plans, procedures, and programs for civil affairs operations throughout its area of responsibility. The brigade coordinates directly with the other subordinate commands of theater army on matters of mutual interest.

(6) *With military intelligence group, theater army.* This group is assigned to theater army headquarters and provides military intelligence support to the theater army. It operates in direct support of theater army headquarters and in general support of military intelligence units assigned to the field army and TASCOM. It also assists in military intelligence activities for which the theater army headquarters normally retains centralized control, such as technical intelligence production. TASCOM provides direct support and general support combat service support to the military intelligence group, theater army. FM 30-9 provides additional information.

(7) *With other major units.* TASCOM, as directed by the theater army commander, provides combat service support to the air defense artillery brigade, theater army reserve forces, USASA units, other services, allied military forces and local governments and populations.

1-7. Theater Army Support Command Operations

a. *Commands.* The personnel, materiel, engi-

neer, transportation, and medical commands (PERSCOM, MATCOM, ENCOM, TRANSCOM, and MEDCOM) of TASCOM provide general support to forces in the combat zone and the COMMZ. The MEDCOM also provides direct support in the COMMZ. In addition, the MATCOM provides direct support ammunition service in the COMMZ. The area support command (ASCOM) is established for command and control of the units that provide direct support services (less medical and ammunition), area emergency warning, and rear area protection in the COMMZ. When the TASCOM commander is delegated civil affairs authority for the COMMZ, he will provide appropriate civil affairs units from the civil affairs brigade to perform his civil affairs mission.

b. Communications System.

(1) In COMMZ, USASTRATCOM (theater), under the operational control of the theater army commander, installs, operates, and maintains the theater army communications system consisting of two communications subsystems to support COMMZ headquarters, units, and installations: a command communications subsystem and an area communications subsystem.

(a) The command communications subsystem consists of direct, point-to-point, multichannel communications links interconnecting TASCOM headquarters with the major headquarters of theater and theater army. Other direct multichannel communications links that may be required between headquarters and installations that cannot be satisfied by the area communications subsystem are provided by tropospheric scatter, multichannel radio, and/or cable facilities. These facilities are engineered to handle all types of traffic on a 24-hour basis.

(b) The area communications subsystem of the theater army communications system satisfies the normal communications requirements of TASCOM and other theater army subordinate commands and their attached units. This system extends along the lines of communication from the rear of the theater through the COMMZ and interconnects with the field army communications system in the combat zone. Local communication service includes messenger and terminal facilities for telephone, secure teletypewriter, data processing, and cryptograph. These capabilities are normally organic to small units or are provided by other signal units of USASTRATCOM (theater) attached to TASCOM major subordinate headquarters to provide entrance into the area subsystem. Circuits within the area sub-

system are generally provided on a common-user basis, with sole-user circuits being provided when justified according to criteria that the theater army commander establishes.

(2) USASTRATCOM links the CONUS defense communications system and the COMMZ and senior tactical maneuver forces communications systems into a worldwide communications system.

(3) FM 11-20, FM 11-23, and FM 101-10-2 contain detailed capabilities of signal units comprising the USASTRATCOM (theater).

(4) USASA (theater) provides communications security assistance for USASTRATCOM facilities operated in support of TASCOM and for communications facilities organic to TASCOM.

c. Personnel and Administrative Support. The PERSCOM provides personnel and administrative support to units in the theater. The personnel and administration center of PERSCOM is the control center that provides coordination with CONUS and control and management of theater army personnel and administrative services, based on Department of the Army and theater army policy and direction. FM 54-7 and FM 29-6 contain a further discussion of personnel and administrative support provided by PERSCOM.

d. Supply System.

(1) The supply system, operated by the MATCOM and MEDCOM stores most of its stocks in COMMZ rear depots and emphasizes scheduled, unitized throughput shipments to the farthest forward point in the field army. The MATCOM materiel management center (MMC) provides inventory management for all designated theater army stocks (less medical, maps, and water) in COMMZ. To facilitate supply transactions and other actions, the MMC is connected electronically with CONUS commodity managers, the TRANSCOM movement control center (MCC), other TASCOM control centers, COMMZ depots and storage activities, and the FASCOM MMC.

(2) The supply system uses the classes of supply, but it recognizes commodity groupings for control and management purposes. These commodity groupings (general materiel, petroleum, missiles and munitions, major equipment, repair parts, medical materiel, and electronic materiel) form the basis for the supply organization: commodity managers, MMC, supply staff of the MATCOM, and operating supply and service units of the MATCOM and MEDCOM depots. Supplies

excluded from MATCOM responsibility include medical items that MEDCOM handles, water and maps that ENCOM supplies, and installation water supply that ASCOM provides. Super-high-dollar-value items may be stored at MATCOM facilities; however, control and accountability of these items remain with the US Army Materiel Command in CONUS. FM 54-1 and FM 54-7 contain more detailed discussions of the supply system and MATCOM. FM 100-10 provides a discussion of super-high-dollar-value items.

e. Maintenance System.

(1) Direct support maintenance and repair parts support are provided primarily on an area support basis by maintenance units assigned to the area support groups of ASCOM. Specialized direct support maintenance units or elements may be organic or attached to provide direct support maintenance to other TASCOM or theater army major subordinate commands on a sole-user basis as required. Direct support maintenance so provided includes direct support maintenance elements organic to certain engineer, signal construction and operations, transportation rail and terminal operations, and air defense artillery battalions. FM 29-20, FM 29-23, FM 54-6, and FM 54-7 provide more detailed discussions of direct support maintenance in the COMMZ.

(2) The primary function of the TASCOM general support maintenance system is to repair unserviceable materiel for return to the TASCOM general support supply system and to perform general support level modifications on supply stocks. The field depots and the ammunition group of the MATCOM perform these functions. MATCOM assigns general support maintenance units to field depots and the ammunition group, as required, to provide general support maintenance for unserviceable materiel evacuated by ASCOM and FASCOM maintenance units. The MMC of MATCOM provides routine management of maintenance operations and also serves as the theater level MMC to support TASCOM headquarters requirements. The MMC maintains close liaison and coordinates with CONUS agencies as required. FM 54-7 contains more detailed discussions of the general support maintenance system and the MATCOM. FM 29-20 covers maintenance management in the theater of operations in detail. FM 29-23 covers operations of maintenance support units.

f. Ammunition Service. The MATCOM accomplishes the ammunition service in COMMZ by

establishing ammunition depot complexes. Each ammunition depot complex normally consists of a conventional and a special ammunition depot and may include a general support guided missile maintenance facility. Ammunition depot complexes are located in both the forward and the rear areas of the COMMZ with a minimum of one forward and one rear ammunition depot per corps slice. The main effort is to support field army. Units located in COMMZ receive support direct from the appropriate ammunition depot. The MATCOM MMC performs routine ammunition supply and maintenance management. FM 9-6 discusses ammunition service in theaters of operations.

g. Chemical, Biological, and Radiological Combat Service Support. Chemical, biological, and radiological (CBR) combat service support that TASCOM provides to Army forces in a theater of operations and to other forces as designated includes clothing impregnation, CBR decontamination, and general chemical laboratory services. FM 3-1 contains a detailed discussion of this support.

h. Management. Headquarters, TASCOM, is not normally involved in day-to-day, routine management of the varied services that its subordinate commands provide. The major TASCOM subordinate commands with control centers, technical or commodity-oriented personnel, and automatic data processing (ADP) facilities perform the complete operational mission, including operational planning and management, implementation, evaluation, and summary reporting to headquarters, TASCOM, for COMMZ. Subordinate commands provide summary management reports to headquarters, TASCOM; the theater army staff; and other major theater army subordinate commanders. These summary reports and ADP printouts, which are based on theater army policy and guidance, indicate trends or situations that require headquarters, TASCOM, to intervene directly to insure efficient, timely, and economic combat service support—management by exception.

i. Combat Service Support ADP System. The combat service support ADP system is used for efficient processing, storing, retrieving, and reporting of information necessary to all commanders. The system uses ADP equipment and procedures to provide standardized inputs and outputs, with procedures compatible throughout the theater of operations and with the CONUS base data systems. The automated system supports the

principle of managing by exception. It provides summary data and eliminates duplication of data maintained at interested higher and lower echelons. TASCOM control centers—personnel and administration, personnel service, materiel management, and movement control—are located at designated subordinate commands and are provided ADP support by the ADP centers assigned to these commands.

j. Transportation Service.

(1) The TRANSCOM provides transportation service in TASCOM as follows:

- (a) Staff transportation functions.
- (b) Movement control.
- (c) Air, highway, rail, water terminal, and inland waterway services.
- (d) Operation of facilities (for example, terminals and rail yards) of units assigned to the TRANSCOM.
- (e) Coordinated employment of airlift and sealift.

(f) Transportation services between the combat zone and the COMMZ (international transportation services).

(g) Coordination of transportation service matters with other US forces, TASCOM commands, FASCOM, and host and allied nations.

(2) The MCC uses ADP equipment to program use of transport capability, lift allocation, and routes throughout the COMMZ. The MCC works closely with the MMC of MATCOM to coordinate needs with available transport to insure proper use of available movement capability. The MCC also works closely with the US Agency for International Development and host country transportation personnel to insure that all combat zone and COMMZ transportation requirements are considered and incorporated into the overall movements program. It coordinates with the CONUS-based Military Traffic Management and Terminal Service. The TRANSCOM achieves maximum throughput of personnel and supplies by direct movement as far forward as possible without offloading, reprocessing, rehandling, and transshipping.

k. Engineer Service. The ENCOM performs new construction, rehabilitation, and major facilities maintenance projects throughout the COMMZ. Construction support is provided to interzonal services and activities in the rear areas of the combat zone. The ENCOM provides general mapping support to the entire theater. ADP support for construction design, scheduling, and

supply requisitioning is furnished by the ASCOM ADP center. FM 5-162 and FM 54-7 discuss engineer services in more detail.

l. Military Intelligence Support.

(1) The military intelligence group, theater army, provides intelligence support that is beyond the organic capabilities of TASCOM headquarters and its subordinate commands. TASCOM subordinate commands retain intelligence responsibilities and resources essential to their missions.

(2) The military intelligence group, security, assigned to the ASCOM provides military intelligence specialist support for the security of US Army personnel and installations and other designated agencies and installations within the TASCOM area. FM 30-9 and FM 54-6 contain more detailed discussions of military intelligence units.

(3) USASA (theater) support of ASCOM operations is provided as arranged by theater army headquarters. These arrangements normally include support of ASCOM communications, civil affairs, security, and rear area protection operations.

m. Medical Support. The MEDCOM consist of a headquarters and headquarters company; health service units and detachments concerned with command and control, evacuation, hospitalization, preventive medicine, laboratory services, dental services, veterinary services, medical supply and maintenance; and other specialized units required to provide COMMZ level medical support within the theater of operations. Medical regulating for patient evacuation throughout TASCOM is a centralized operation under the MEDCOM, using ADP facilities of the PERSCOM ADP center for outpatient accounting and regulating, FM 8-10 and FM 54-7 discuss the MEDCOM in more detail.

n. Stability Operations.

(1) All forces assigned to the theater army components of unified commands are potential stability operations forces. The TASCOM commander receives specific missions in support of stability operations from the theater army commander or other higher authority. TASCOM organizations and units have a collective capability for performing in-country survey and planning for and advising, training, and supervising host country forces in the performance of the combat service support aspect of internal defense and internal development programs. Subordinate

TASCOM elements provide combat service support to stability operations in accordance with TASCOM policy. This support is provided through the area coordination centers, which are combined civil and military headquarters at regional, provincial, district, and local levels (hamlet and village).

(2) As stability operations are undertaken in an environment in which the host country sovereignty must be respected, the activities of TASCOM are restricted in use of real estate, acquisition of support areas, use of civilian labor, and development of overall security. There are for TASCOM additional considerations in the sharing of facilities and the extension of combat service support to other US agencies and allied forces. Economic development programs for the region may compete with military support needs in the allocation of port space and similar public facilities. Finally, humanitarian considerations may require diversion of some military resources to support of communities and groups suffering from the general privation of war.

(3) FM 100-20 discusses internal defense and development. FM 31-23 discusses stability operations.

o. Civil Affairs Support. A civil affairs brigade normally provides civil affairs support in the COMMZ. The civil affairs brigade, assigned to theater army, provides area support in the COMMZ and backup support to the field army affairs units. The brigade's subordinate units are assigned areas of responsibility dependent on densities of civil population, strength of indigenous government, and geographic or political boundaries. These units are normally the point of contact for relations with the local authorities and people. FM 41-10 and FM 100-15 contain more detailed discussions of civil affairs in TASCOM.

p. Rear Area Protection. Rear area protection (RAP) includes all the actions that the area commander takes to prevent or neutralize localized enemy threats to units, activities, and installations in the rear area (rear area security), as well as preventive and control measures to reduce the effects of such an attack or of a natural disaster on combat service support operations (area damage control). These actions and their political considerations represent an added major concern to the TASCOM commander in the COMMZ. RAP includes military, police, psychological, and sociological measures taken to prevent or reduce the effect of hostile actions. The area commander

executes RAP functions through a rear area operations center in the area support group. FM 31-85 discusses rear area protection in detail.

1-8. Field Army Support Command Structure

a. Mission. The field army support command (FASCOM) as a major subordinate unit of the field army provides combat service support as follows to Army forces in the field army area and to other designated forces:

- (1) General support to divisions.
- (2) Direct and general support in the corps and field army service areas.
- (3) Rear area protection in the field army service area.

b. Organization.

(1) FASCOM is normally organized with the following major subordinate commands (fig. 1-5):

- (a) One corps support brigade for each corps supported.
- (b) Army support brigade for support of troops located in or transiting the field army service area.
- (c) Medical brigade.
- (d) Military police brigade.
- (e) Transportation brigade.

(2) In addition, to assist in management of its resources, FASCOM has two functional control units and an ADP unit as follows:

- (a) Movement control center.
- (b) Materiel management center.
- (c) Automatic data processing unit.

c. Engineer and Signal Support Units. The engineer and signal brigades, directly subordinate to the field army headquarters, provide army-wide engineer and signal services. The engineer and signal brigades perform the functions normally associated with their branches except for supply and maintenance, which are FASCOM responsibilities.

d. Command and Staff Relationships with Field Army Headquarters.

(1) *Command.* The field army commander provides orders to FASCOM for combat service support activities within the field army area, together with policies, priorities, allocations, directives, and guidance.

(2) *Staff.* The field army staff includes assistant chiefs of staff (ACS), G1, personnel; G2, intelligence; G3, operations; G4, logistics; G5,

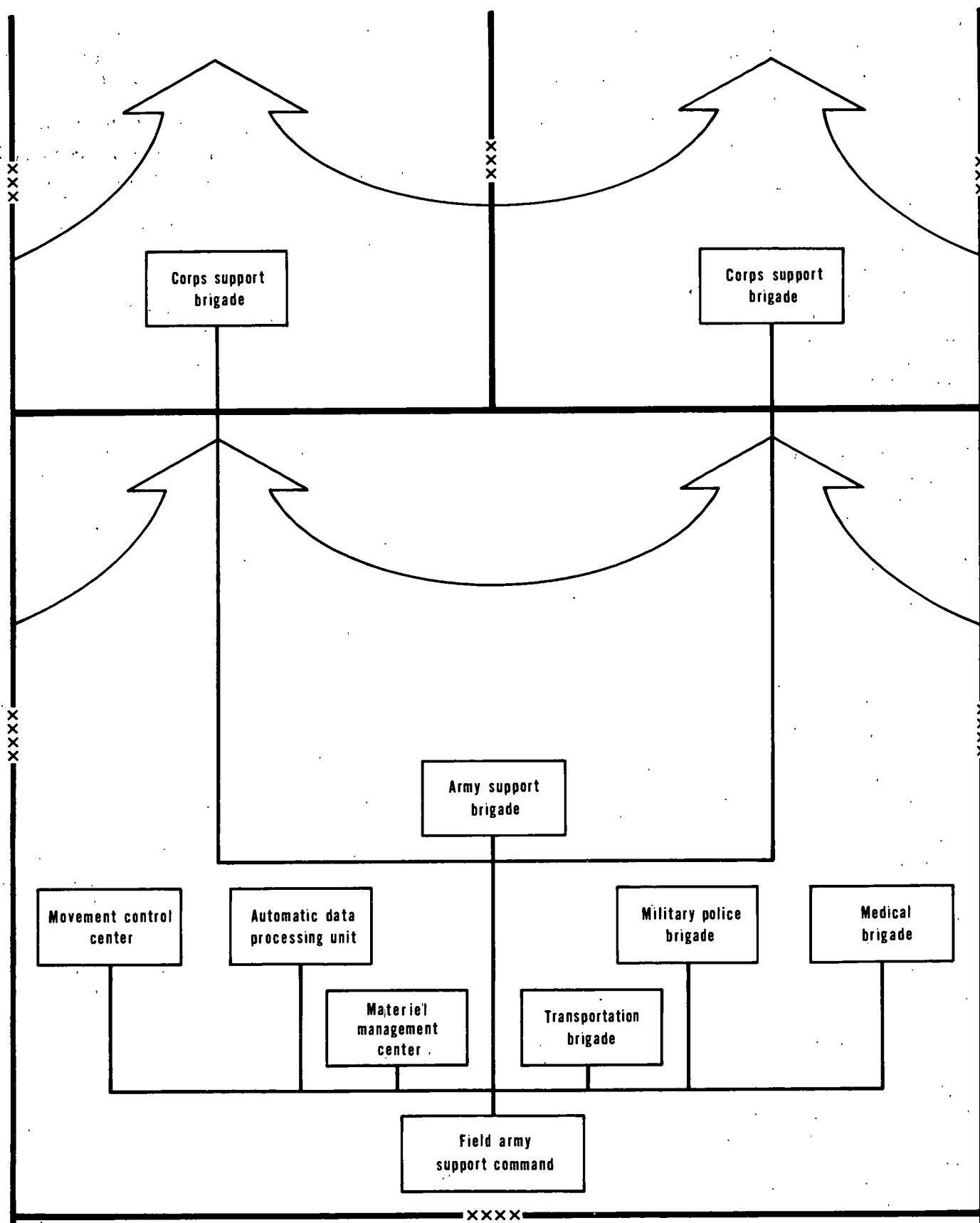


Figure 1-5. Organization of the field army support command.

civil-military operations; and comptroller when authorized. These officers have general staff responsibility for activities in their areas of interest throughout the field army, and they give advice to the field army commander in these areas. In connection with combat service support operations, they assist the field army commander to develop plans and policies and to maintain liaison with the FASCOM staff to insure that approved courses of action are followed, and they make recommendations to the field army commander concerning necessary changes. Their relationship with the FASCOM staff is essentially the same as their relationship with the corps staff concerning tactical operations.

1-9. Field Army Support Command Operations

a. Armywide Services. The medical brigade, military police brigade, and transportation brigade provide general support services on an army-wide basis in support of division, corps, and field army combat support units and of the FASCOM corps and army support brigades.

b. Support Brigades. The support brigades provides supply, maintenance, transportation, and other services as designated. In a typical field army one support brigade, designated the corps support brigade, supports each corps and another, designated the army support brigade, is employed in the field army service area. The headquarters elements of all support brigades are identical, but the numbers and types of subordinate units vary depending on the area of employment and the support requirements. The corps support brigade provides maintenance, supply and services, transportation and movement control, personnel and administration, and military police support to all supported elements in the corps area and ammunition service throughout the field army area on the basis of a corps slice. The army support brigade provides maintenance, supply and services, and personnel and administration support to all supported elements in the field army service area and backup supply and maintenance to the corps support brigades. Transportation support in the army service area is provided from capabilities authorized the FASCOM transportation brigade.

c. Communications. The field army signal brigade provides area communications support for FASCOM and the signal operations company (medium headquarters) provides the internal

communications for the FASCOM, which includes signal communications as well as photographic support. However, some elements of FASCOM have organic signal communications equipment and personnel to provide internal communications. The field army signal brigade operates the army area communications system, which is composed primarily of signal centers located throughout the field army area. These centers provide communications center service to units in their areas. In addition, they serve as central points for wire service to units in the area that are authorized telephone and teletype equipment. The centers are located to permit easy access to supported units and to provide alternate routing during emergencies. Telephone and teletype equipment organic to the signal companies and to elements of FASCOM is connected to the facilities provided by the area communications systems. Communication is maintained principally by radio relay, cable, or a combination of both. The army signal brigade provides systems control, circuit routing facilities, and technical control and supervision over the field army signal communications system.

d. Personnel and Administrative Support. Personnel and administrative support employing ADP equipment is centralized at support brigade level to provide services on an area basis for corps, field army, and FASCOM troops. The support brigade personnel and administration battalion executes the personnel and administrative policies that the support brigade and either the field army or corps commanders establish.

e. Supply and Services Support.

(1) *Management.* The supply management system includes an MMC at FASCOM headquarters to exercise inventory management plus support brigade MMC's as decision making agencies in the routine processing of supply actions. Operationally, the system is based on decentralized stock locations and centralized stock management activities that have ADP services and electronic communications facilities. Maintenance of logistic (cataloging and supply management) data in the MMC computers will be on the basis of data changes derived from the Army master data file (AR 708-1). The US Army Security Agency (USASA) may use the computer facilities of the MMC for parts and equipment for which it has managerial responsibility.

(2) *Supply levels.* The Department of the Army prescribes levels of supply for the theater

army in terms of days of supply, and the theater army commander prescribes levels for the combat zone and the COMMZ. For planning purposes, field army stockage levels are 10 days for all classes of supply except repair parts (class IX) and bulk petroleum (class III): 2 days' stockage at the direct support level, 3 days' stockage at the general support level, and an additional 5 days' stockage for the field army in the army service area. Repair parts are stocked in FASCOM in varying amounts up to 15 days at all supply levels. The characteristics of particular repair parts determine the days of supply stocked.

(3) *Supply functions.* The following are general support supply functions:

(a) Providing storage points to regulate the flow of supplies.

(b) Handling large tonnages of supplies by use of materials handling equipment.

(c) Providing for breakdown of bulk shipments.

(d) Processing heavy material before issue.

(e) Providing for supply of construction and fortification materials.

(f) Providing for general support supply of repair parts.

(g) Providing for stockage of additional demand-supported items.

(h) Providing for emergency supply when normal throughput shipments are interrupted.

(i) Carrying a portion of the field army reserve stocks.

(4) *Service support.* The supply and service company organic to the supply and transport battalion of each division furnishes direct support services to the division. For nondivisional units, supply and service companies are assigned to supply and service battalions operating in corps areas and the field army service area to provide direct support services. At the general support level within the field army, the field service general support company, forward, and the field service general support company, army, provide field service support. Because of variations in divisional and nondivisional direct support units, these general support units are organized into two configurations. In the corps areas, the units include a bakery capability and a graves registration, collection, and evacuation capability required to support divisional units. In the field army service area, these capabilities are deleted and a cemetery capability is added to the field service general support company, army.

(a) *Laundry service.* The direct support supply and service companies provide direct support laundry service for nondivisional troops in the field army. Field service general support companies, forward, provide laundry service for divisional units. These companies also possess a capability for chemical-biological-radiological (CBR) clothing impregnation and reimpregnation. FM 3-1 contains information on CBR clothing impregnation and reimpregnation.

(b) *Renovation.* Renovation of clothing and lightweight (launderable) textiles is a function of the direct support supply and service company that supports nondivisional units. At the general support level, the field service general support company, forward, provides renovation services for divisions and the field service general support company, army, provides backup support for direct support supply and service companies and the field service general support companies, forward.

(c) *Salvage.* Salvage is generated from normal troop turn-in of worn or damaged supplies and equipment for replacement; recovery of unneeded clothing and equipment from casualties; finding of lost, abandoned, or discarded materiel on the battlefields and in billets and bivouac areas; capture of enemy materiel; turn-in of excess supplies; and maintenance operations (replacement of worn or damaged parts and components and cannibalization).

(d) *Decontamination.* There is no decontamination service at direct support units. However, both the field service general support company, forward, and the field service general support company, army, have limited decontamination capabilities. FM 3-1 contains further information on decontamination service.

(e) *Labor service.* The service platoons of field service companies, army, provide military labor necessary to support supply operations. In the field service general support company, forward, the salvage and service platoon has military labor to support supply operations and the operation of a corps salvage collecting point.

(f) *Graves registration.* Graves registration in the field army encompasses recovery and identification of deceased personnel, handling and processing of their personal effects, evacuation and interment, and preparation and maintenance of necessary records and reports. The supply and service company organic to division provides direct support graves registration functions for divisional units. Direct support supply and serv-

ice companies operating in corps and field army service areas provide direct support graves registration service for nondivisional units. At the general support level, graves registration activities vary between the corps and field army service areas. For this reason, the graves registration platoon in the field service general support company, forward, can provide for collection, identification, and evacuation of deceased personnel in the corps area. In the field service general support company, army, this platoon is a cemetery platoon.

(g) *Bakery.* The supply and service company (direct support) provides bakery service for nondivisional troops. A bakery section in the field service general support company, forward, provides bakery support for divisions.

(h) *Bath and clothing exchange.* Bath and clothing exchange are direct support services that the supply and service company, supply and transport battalion (TOE 10-7), furnish for divisional units and the supply and service company, direct support (TOE 29-147), furnishes for nondivisional units.

(i) *Clothing and post exchange sales.* In the field army, sales detachments may be attached as required to supply and service battalions in the corps and army support brigade areas to provide clothing and post exchange types of sales services. Sales detachments can provide both mobile and static facilities for the nonprofit sale of health and comfort items.

f. Maintenance Services.

(1) Maintenance units assigned or attached to corps and army support brigades provide maintenance support within FASCOM.

(2) Direct and general support maintenance battalions accomplish maintenance support in FASCOM. These battalions are assigned to support groups under the corps support brigades and the army support brigade as required.

(3) Maintenance support is based on the concept of repair or exchange of serviceable for un-serviceable components at direct support level. Direct support maintenance units repair the equipment of supported units on a repair and return-to-user basis. Components declared un-serviceable by a technical inspection are removed at the direct support level and are reported to the MMC at the support brigade before evacuation to a general support unit. General support maintenance units repair the components and return them to supply channels.

(4) General support maintenance battalions assigned to the corps and army support brigades provide general support maintenance service and backup direct support maintenance to combat divisions and nondivisional direct support maintenance units. The maintenance mission of the general support battalions is oriented toward repair and overhaul of major components of large end items such as tanks, construction equipment, and materials handling equipment for return to supply stock. Their mission is further oriented toward repair or overhaul of smaller end items such as small arms, instruments, power generators, portable flamethrowers, and mine detectors for return to supply channels. As an exception and as the component repair and overhaul workload permits, large end items that are combat essential and critical to support operations may be overhauled at the general support level. General support units employ production-line techniques when possible. To facilitate this practice, repair of selected components must be centralized in specific units and MMC's must control repair programs. General support units maintain shop stocks of repair parts for work programs.

(5) Materiel management centers are assigned to FASCOM headquarters and to each support brigade. These centers serve as the MMC for the headquarters to which they are assigned. The ACS, materiel, exercises supervision and control over these detachments. ADP support for MMC operations is provided by the ADP center supporting the headquarters. Repaired end items and components are turned in to supply units and depots as directed by the MCC's, returned to users, and placed in operational readiness floats or direct exchange stocks. The procedures established by these centers insure that collected data that highlights maintenance operational and repair parts support problems are analyzed and used to improve maintenance operations and equipment readiness.

g. Ammunition Supply and Service.

(1) *Ammunition supply.* Ammunition supply in the FASCOM is provided at direct and general support levels. At both levels, conventional ammunition companies operate ammunition supply points for conventional ammunition and special ammunition companies operate special ammunition supply points for special ammunition. Staff supervision of ammunition supply in major combat service support headquarters is exercised by ammunition service staff personnel on the staff of the ACS, supply, at the headquarters

of the COMMZ MATCOM, the FASCOM, and the corps support brigade. At these headquarters, ammunition service personnel in the missile and munitions branch of the MMC perform ammunition supply management. These centers can provide personnel to form a special ammunition logistical element, which may be located at the headquarters (for example, tactical operations center) of the senior commander concerned to aid in supply and resupply of special ammunition.

(2) *Ammunition service.* Ammunition service embraces supply and maintenance support of conventional and special ammunition to include maintenance of guided missile systems. Supply and maintenance support includes—

(a) Direct and general support supply of all types of conventional and special ammunition.

(b) Direct support supply of all special ammunition repair parts and repair parts for missiles.

(c) General support supply of repair parts peculiar to special ammunition.

(d) In-storage maintenance of conventional ammunition.

(e) Direct and general support maintenance of special ammunition materiel to include test and handling equipment and nuclear weapon trainers.

(f) Direct support maintenance of missile systems.

(g) General support maintenance of all missiles, rockets, and missile-system-peculiar ground guidance, launching equipment, special tools, and peculiar test and handling equipment used in support of mission items.

(h) Explosive ordnance disposal service.

h. Engineer Support. Engineer support in the field army area includes construction and other services that units assigned to the corps or field army perform for FASCOM and those that engineer service teams attached to and controlled by FASCOM perform. The engineer combat brigades assigned to the corps and field army perform engineer construction support for FASCOM on a mission or task basis. These brigades command all separate engineer units in the corps and field army areas and in the combat zone of an independent corps and provide general engineer support to all elements of these forces.

i. Medical Support. The medical brigade provides medical evacuation and hospitalization, dis-

pensary type medical treatment, medical supply and maintenance, and dental, veterinary, laboratory, and preventive medicine support to the field army. The medical brigade commander commands all units attached or assigned to the brigade headquarters. FM 8-10 discusses this brigade in more detail.

j. Military Police Support. The military police brigade provides military police services for the field army service area and functionalized support for handling prisoners of war, civilian internees, and US military prisoners on an army-wide basis. The brigade performs the following functions:

(1) Traffic control.

(2) Handling prisoners of war and civilian internees.

(3) Maintenance of discipline, law, and order.

(4) Crime prevention and investigation.

(5) Confinement of US military prisoners.

(6) Physical security of critical and sensitive movements.

(7) Physical security of installations, facilities, and property.

(8) Circulation control of individuals.

(9) Assistance in rear area protection.

(10) Selection, training, organization, equipment, and employment of indigenous paramilitary and military police personnel.

(11) Convoy security.

k. Transportation Service.

(1) The transportation brigade provides transportation services throughout the field army area. It can also augment the organic transportation units assigned to the corps support brigade to provide increased capabilities at that level. The brigade provides the following services:

(a) Line-haul motor transportation and, as required, local delivery of personnel and cargo. This includes—

1. Backup support for movements originating in a corps support brigade area.

2. In a corps support command (COSCOM) organization, provision of transport for port clearance operations when a corps operates independently.

(b) Airlift capability for select cargo, personnel replacements, unscheduled or emergency missions and medical evacuation if required.

(c) Terminal services as required.

(d) Transportation for airdrop of personnel and materiel if Air Force units are attached.

(e) Army air lines of communication that do not duplicate Air Force routes, for necessary support of units when resupply by surface means is not feasible.

(2) The transportation organizations in the corps support brigade (normally transportation and movement control elements are not assigned to the army support brigade) provide an area-wide service in support of the supply and replacement distribution mission of the brigade and in support of tactical operations when required. The transportation organizations are responsible for day-to-day management of the transportation resources and road nets of the brigade and for providing line-haul motor transport and local delivery of personnel and cargo. In carrying out their responsibilities, the transportation services—

(a) Prepare plans and instructions for the movement of personnel and materiel.

(b) Coordinate and consolidate all movement requirements and transportation capabilities

of the support brigade. These include the requirement for requesting transportation assistance from FASCOM when movement requirements exceed the capabilities of transportation assigned or attached to the support brigade.

(c) Implement priorities for movement of personnel and cargo in accordance with the commander's instructions.

(d) Determine requirements, develop traffic circulation and highway regulating plans, and implement the commander's priorities for the use of available road nets to support operations.

(e) Provide motor transport for the movement of personnel and materiel.

l. Civil Affairs. Civil affairs is a command responsibility involving the relationship of the military commander and his forces with the civil authorities and people of a foreign country. Civil affairs operations range from advice, assistance, populace and resources control, and military civic action performed in a friendly country through military government performed in an occupied territory. Civil affairs support for the FASCOM area will be provided by the civil affairs brigade assigned to field army.

CHAPTER 2

THEATER ARMY TRANSPORTATION SERVICES

(STANAG'S 2084 and 2117)

Section I. GENERAL

2-1. Introduction

a. The Army transportation services in a theater of operations provide combat service support in four functional areas: staff transportation, movements management, mode operations, and terminal services. These functions are discussed in succeeding chapters.

b. The theater army transportation service is flexibly organized to serve its customers. It must be capable of concentrating, allocating, and diverting all transportation modes and means available for support of specific and general missions. All transportation service elements—from the transportation planner (staff officer) through the movements management coordinator to the mode and terminal operators—must be capable of adjusting the resources to meet varying intensities of conflict.

c. An adequate transportation service to support a theater or a specific operation begins with the assistant chief of staff (ACS), movements, or the staff transportation officer who is the initial planner of such services. Normally, planning transportation service requirements in support of operational or contingency plans starts at Department of the Army level. After requirements are established, plans include forecasts of transportation units needed to support the required transportation system. Of course, the planner has also considered the specific geographical area of operations and the existing transportation net before forecasting transportation unit requirements. Once a theater of operations has been established, transportation planning is transferred to the theater army AFS, movements. Transportation planning is discussed in detail in chapter 3.

2-2. Transportation Staff Elements

a. Since transportation capability is a major factor considered by a commander in develop-

ment of his plan of battle or accomplishment of his mission, he should have an ACS, movements, staff section on his general staff or a transportation section on his special staff. This is recommended because development of transportation plans in support of operations includes coordination with all general staff sections and certain special staff members such as the engineer staff for road construction, the aviation section for use of air space for combat service support air transport operations, and the communications-electronics staff sections for required communications support.

b. The commander of a unified or specified command is responsible for coordination of the air, sea, and land transport modes available to the theater. Normally, the J4 exercises staff supervision over allocation and use of transportation capabilities and facilities. However, based on the magnitude of transport requirements, the force commander may establish an ACS, movements, staff section on the joint staff level for carrying out the commander's staff transportation functions.

c. A Joint Military Transportation Board (JMTB) should be established by the commander when the transport capabilities of two or more services and allied nations are required for accomplishment of the forces' mission. The JMTB is a staff agency under the supervision of the command J4 or the ACS, movements. It is composed of representatives from each of the service components and from the major joint forces. When appropriate, representatives of host and allied nations may become part of the JMTB. On the basis of forecasted requirements of service components, the JMTB recommends allocation of all transportation resources available to the command in accordance with priorities established by the commander. Based on the recommendations of the JMTB, the J4 or the ACS,

movements, allocates transport capability to the service components. In turn, the theater army sub-allocates to the theater army support command (TASCOM) and the field army commanders, the transport capability allocated to it by the J4 or ACS, movements.

d. ACS, movements, or staff transportation sections are allocated at all echelons of command from theater headquarters to division. They are also located in support battalions, groups, and brigades that support independent brigade, divi-

sion, and separate corps operations. Duties of the ACS, movements, or staff transportation officer are discussed in chapter 3.

2-3. Transportation Organization

The transportation organization is a theater of operations is not fixed but is dependent on a number of factors, such as geography of the theater, existing and potential transportation nets, availability of aviation and other military transport resources, and transportation requirements

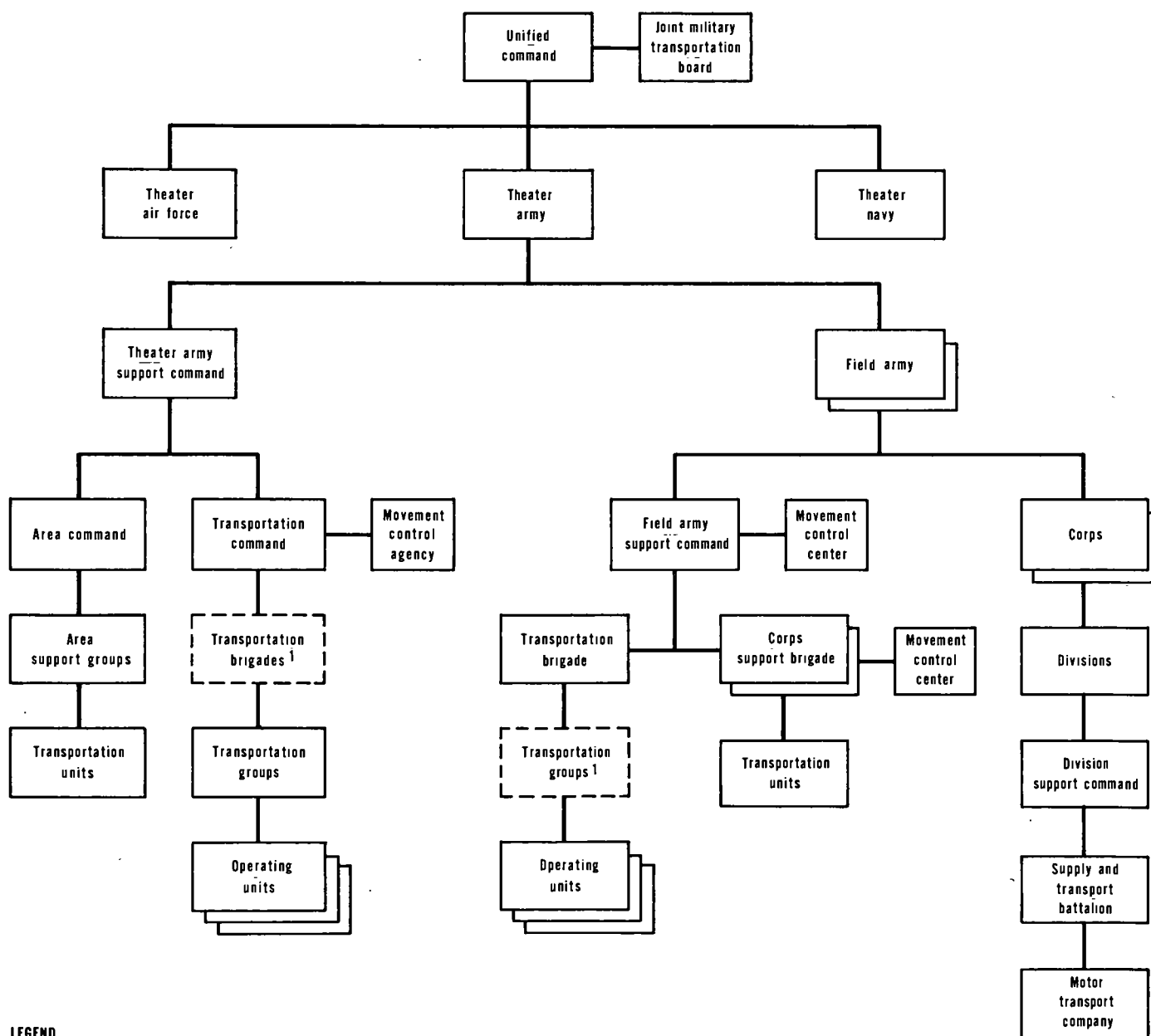


Figure 2-1. Transportation organizations in a theater of operations.

of the forces supported. Transportation terminal, mode operating, and movement control units are assigned to a theater to provide the required transportation service. Based on the number and type of transportation units required, appropriate transportation headquarters units are allocated for command and control. The various modes and terminal transportation headquarters and operating units are discussed in chapter 5 through 9. Figure 2-1 shows type transportation units in a theater of operations.

a. *Theater Army Support Command Transportation Organizations.* In a TASCOT support organization a field army consisting of an 8 to 12 division force, the highest level transportation headquarters is the transportation command (TOE 55-2) (fig. 2-2). Subordinate to the transportation command are transportation mode and terminal brigades, groups, and battalions, and a movement control agency. Battalion headquarters units are authorized on the basis of three to seven subordinate transport or terminal operating companies. Transportation group headquarters are authorized for command and control of two to seven transportation battalions. In turn, the transportation brigade headquarters is normally allocated on the basis of three or more subordinate groups. Special situations such as magnitude of the land area or operating conditions may require a brigade headquarters to command only two group headquarters. For example, when there are two separate railway systems operated by one rail group for each system, each rail group headquarters can report direct to the transportation command headquarters. However, if two rail group headquarters operate two contingent sections of a single railway system, a railway brigade headquarters will be required to command and control the operations of the two groups. Direct support maintenance units in the communications zone that provide support to transportation units are normally assigned or attached to the area support group. General support maintenance units are assigned or attached to the field depots of the TASCOT supply and maintenance command. However, direct and general support maintenance units that provide services solely in support of transportation operations may be attached to the appropriate transportation battalion or group headquarters for command and control. For example, the transportation lighterage maintenance company (direct support) (TOE 55-158), which provides support for transportation amphibious and boat

units, may be attached to the terminal battalion or group headquarters.

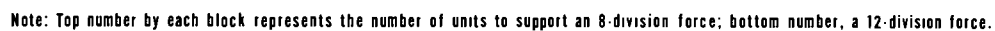
b. *Field Army Support Command Transportation Organizations.* The field army support command (FASCOM) in support of an 8 to 12 division, two-corps force or of an independent corps force will be authorized a transportation brigade headquarters and headquarters company (TOE 55-62). Under a FASCOM organization, each corps support brigade has a movement control center and a motor transport battalion.

(1) In the 8 to 12 division force, the transportation brigade with its subordinate units provides transportation service on an armywide basis. The transportation brigade's transport capability is allocated to support the field army service area and to augment the capability organic to the corps support brigades and divisions. It provides a throughput distribution service from FASCOM general support units in the field army service area to as far forward as possible into the division area and also transports resupply to direct support units located in the corps areas and the field army service areas. Figure 2-3 indicates types of transportation units in an 8- and a 12-division type FASCOM.

(2) When the transportation brigade is employed in support of an independent or separate corps operation, it may be required to operate the transportation service from the water line to the front line. If this type of service is required, the transportation brigade headquarters staff elements must be augmented with terminal operations, water transport, and rail transport staff personnel if transportation terminal, boat, and rail units are attached to the brigade. Figure 2-4 represents types and numbers of transportation units that may be required to support an independent or separate corps.

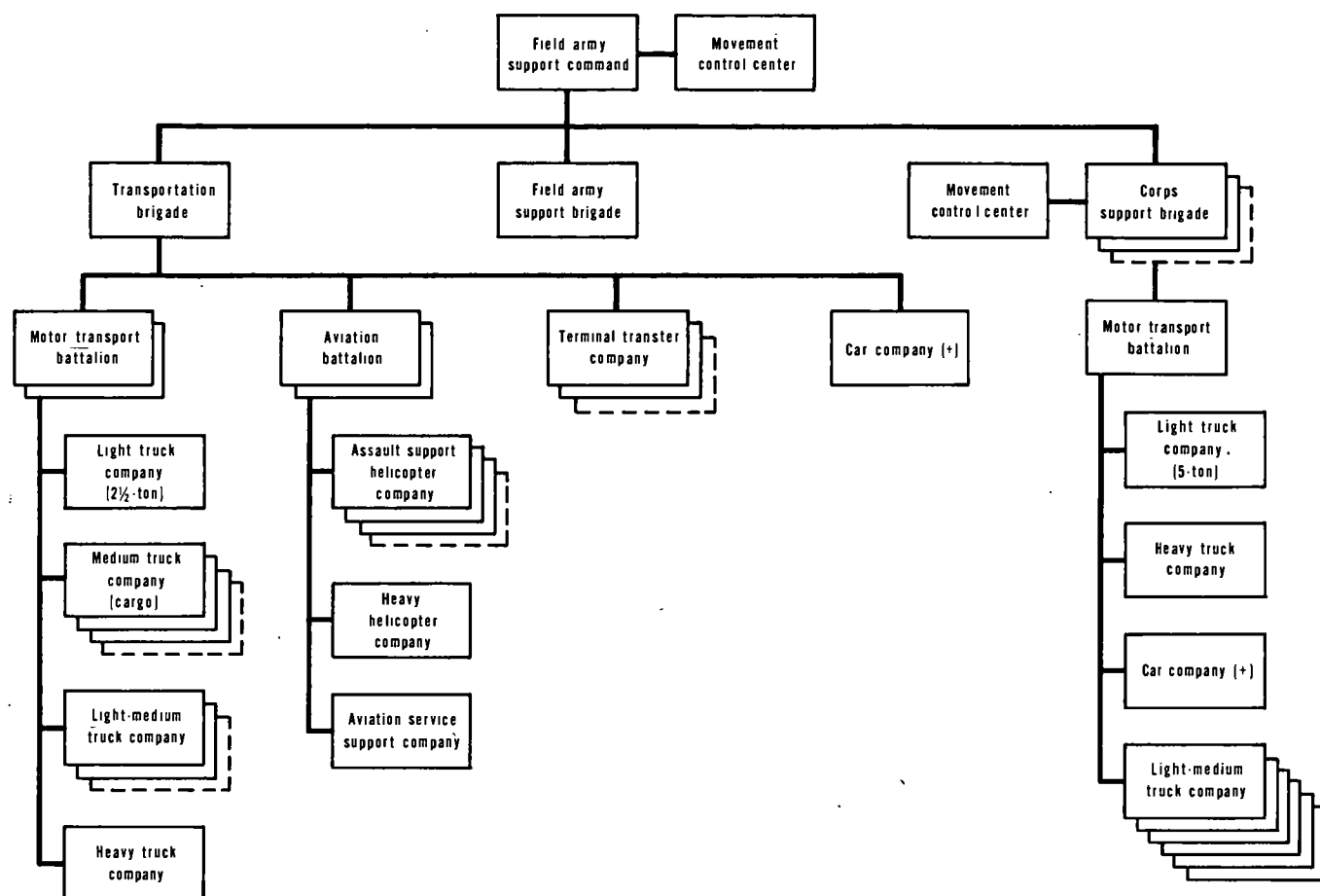
c. *Transportation Support of an Independent Division Force.* Transportation support of an independent division force is provided by a transportation composite group headquarters and headquarters company (TOE 55-52). The transportation service provided by the group may include movement of personnel and resupply from the water line to the front line. The composite group headquarters has the necessary staff to provide adequate command and control of transportation units depicted in figure 2-5.

d. *Transportation Support of Independent and Separate Brigade Operations.* Independent and



Command

Figure 2-2. A type TASCOM transportation organization to support an 8- and a 12-division force.



Note: Broken lines denote units normally deleted for support of an 8-division force.

Figure 2-3. A type FASCOM transportation organization to support an 8- and a 12-division field army.

separate brigade operations require different degrees of support.

(1) Independent brigade operations may use divisional brigades or separate brigades. Divisional brigades must be provided transportation support from the division support command motor transport company. Separate brigades are basically authorized motor transport capability in the supply and transport company of the support battalion.

(2) If a separate brigade is to be used as a force such as in stability operations, the organic support battalion must be expanded to include additional transportation elements to provide service from the water or air port of debarkation to the brigade's subordinate units. This may require addition of terminal service, terminal transfer, amphibian or boat, movement control,

and air, rail, and motor transport units or elements of units. If the number of units required is great enough, a transportation composite group headquarters may be required. The group headquarters would be subordinate to a combat service support brigade.

(3) Staff transportation and movement control capability is provided in the separate brigade headquarters but is not organic to the divisional brigade headquarters. Therefore, in independent or separate force operations, the division transportation section must be augmented with nondivisional resources in order to provide adequate staff transportation and movement control personnel to the divisional brigade headquarters. This is true except for the air-mobile division, which has such capability organic to the division support command headquarters.

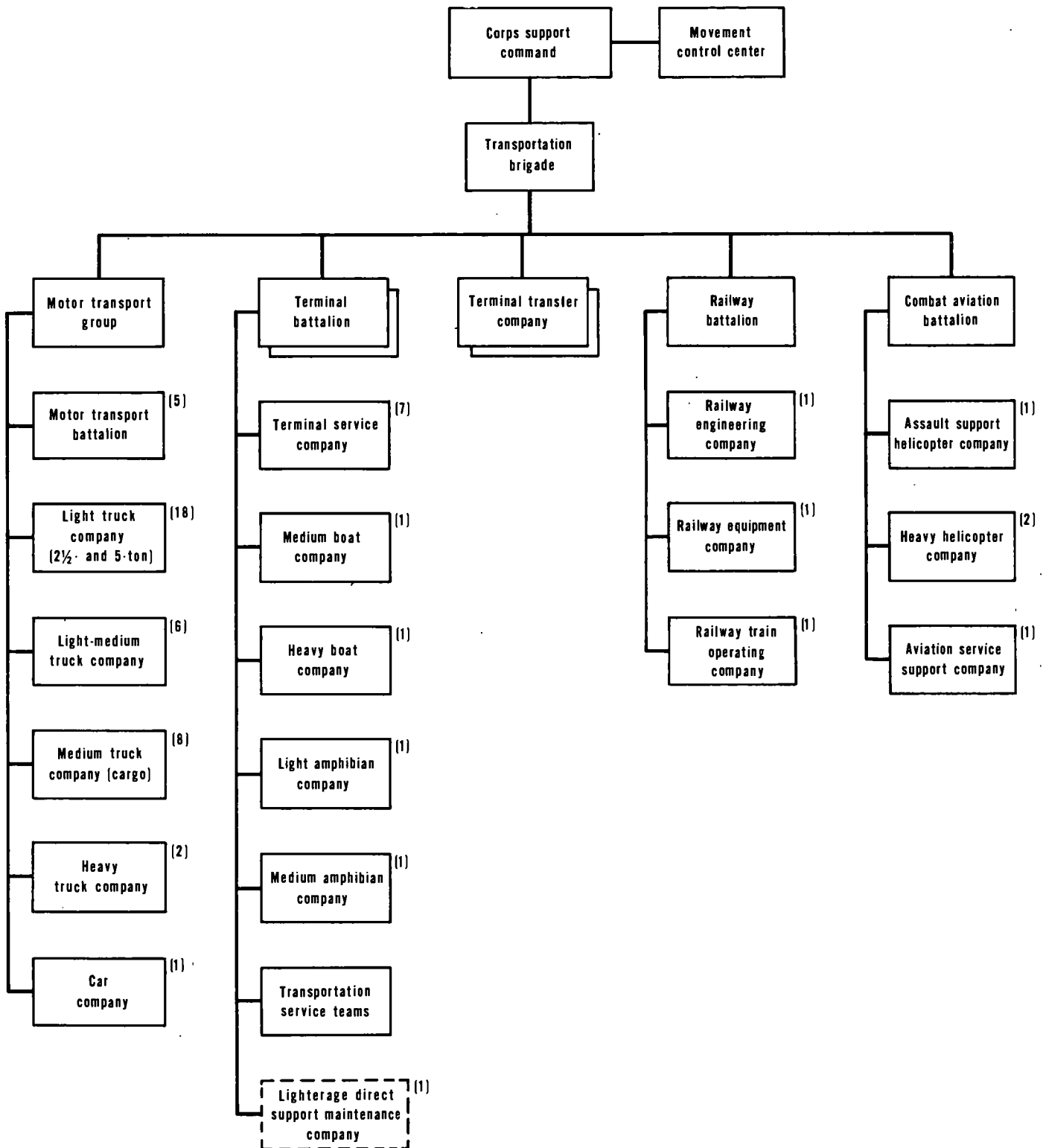
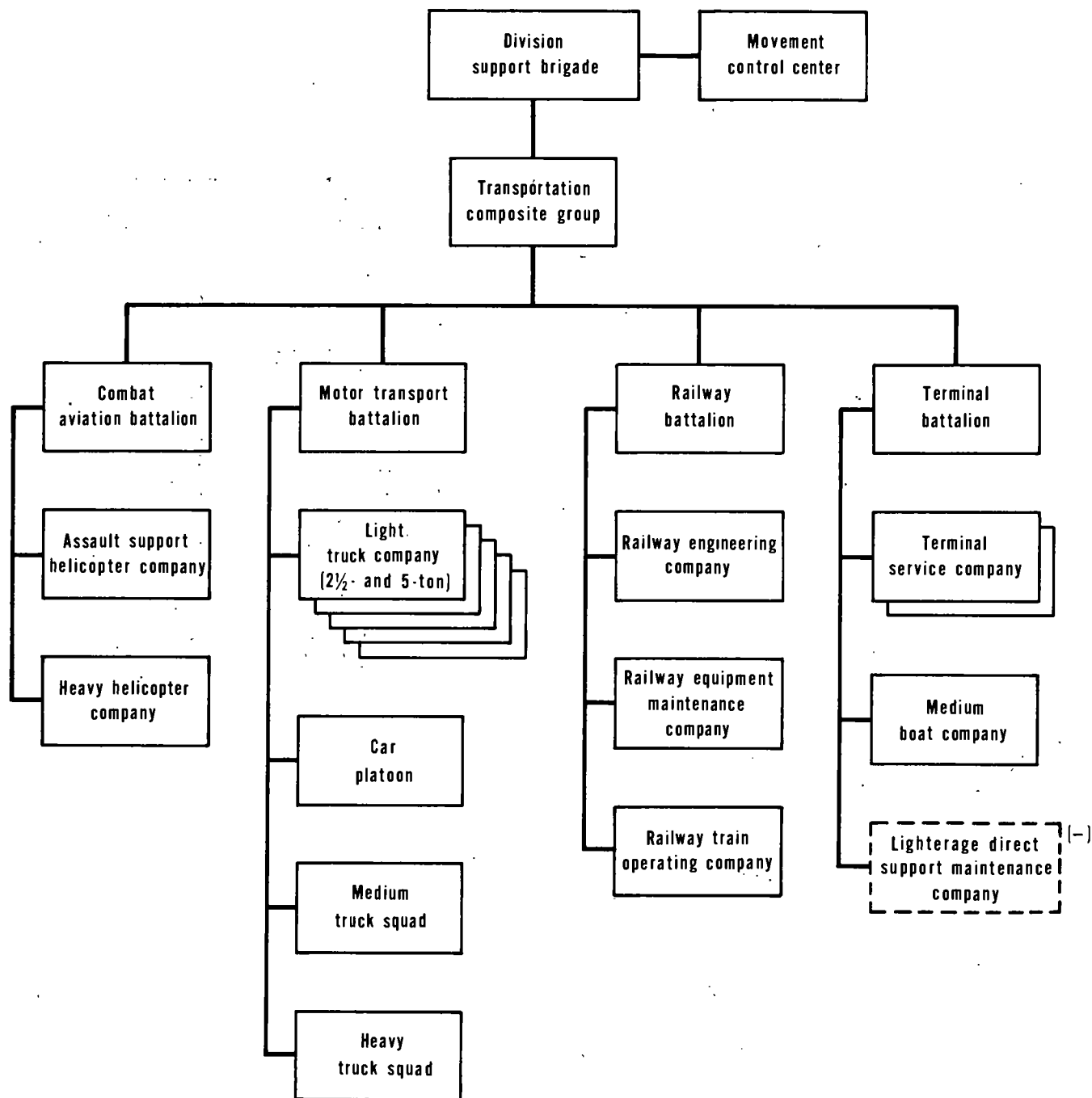


Figure 2-4. A type transportation organization to support an independent corps of three divisions.



LEGEND:

- Command
 - - - - As required

Figure 2-5. A type transportation organization to support an independent division force.

Section II. TRANSPORTATION COMPOSITE HEADQUARTERS UNITS

2-4. Type Transportation Headquarters Units

There are two types of transportation headquarters—functional and composite.

a. In a functional organization, the battalion group, and brigade headquarters command and control only one transportation function such as motor or rail transport or water terminal activities. These single mode or functional headquarters units are—

TOE	Title
55-11 ^a	Headquarters and Headquarters Company, Transportation Motor Transport Brigade
55-12	Headquarters and Headquarters Detachment, Transportation Motor Transport Group
55-16	Headquarters and Headquarters Detachment, Transportation Motor Transport Brigade
55-111 ^b	Headquarters and Headquarters Company, Transportation Terminal Brigade
55-112 ^c	Headquarters and Headquarters Company, Transportation Terminal Group
55-116	Headquarters and Headquarters Company, Transportation Terminal Battalion
55-201 ^c	Headquarters and Headquarters Company, Transportation Railway Brigade
55-202	Headquarters and Headquarters Company, Transportation Railway Group
55-226	Headquarters and Headquarters Company, Transportation Railway Battalion

b. The composite-type transportation headquarters units provide command and control of the various units engaged in mode operation, terminal activities, and movements management. These headquarters units are—

TOE	Title
55-2	Headquarters and Headquarters Company, Transportation Command (TASCOM)
55-62	Headquarters and Headquarters Company, Transportation Brigade (FASCOM or COSCOM)
55-52	Headquarters, and Headquarters Company, Transportation Group (Composite)

^a The former title, Motor Transport Command, was changed by the TASTA-70 study (The Administrative Support, Theater Army, 1965-70). The major TOE change was reorganization from the functional staff to an assistant chief of staff structure. See FM 55-30, Army Motor Transport Units, for a detailed description of this headquarters.

^b The TASTA-70 study deleted the terminal operation capability from the former terminal command headquarters and placed operations at terminal battalion level. Also, the terminal headquarters was relieved of area command responsibilities. Therefore, the old terminal commands A, B, and C were deleted and the normal army headquarters unit titles (group and brigade) were substituted. TOE 55-111 is organized with an assistant chief of staff structure and TOE 55-112 is organized with an S type staff. See FM 55-61, Army Terminal Units.

^c TOE 55-302, Headquarters and Headquarters Company, Transportation Railway Command, was renumbered 55-201 and redesignated Headquarters and Headquarters Company, Transportation Railway Brigade. TOE 55-201 is organized with a functional assistant chief of staff structure required for railway type operations. The former (1955) TOE 55-201, General Headquarters, Transportation Railway Service, has been deleted because no requirements exist for such a large railway headquarters. FM 55-20 discusses railway headquarters units in detail.

c. The three composite transportation headquarters units are discussed in succeeding paragraphs of this section.

2-5. Headquarters and Headquarters Company, Transportation Command

a. The headquarters and headquarters company, transportation command (TRANSCOM) (TOE 55-2), is employed in the communications zone (COMMZ) in support of an 8 to 12 division force. It is normally attached to the theater army support command (TASCOM) but, if a TASCOM is not authorized, the TRANSCOM will be directly subordinate to theater army headquarters. The headquarters is organized with an assistant chief of staff structure as indicated in figure 2-6.

b. The missions of the transportation command are—

(1) To command and control transportation units and other assigned or attached units required for operation of the TASCOM transportation service.

(2) To provide staff assistance to the TASCOM assistant chief of staff (ACS), movements, for TASCOM level transportation plans, policies, and procedures.

Note. The command's ACS, movements, staff section is manned to provide this assistance to the TASCOM ACS, movements, or to assist theater army staff if a TASCOM headquarters is not authorized in the theater army force structure.

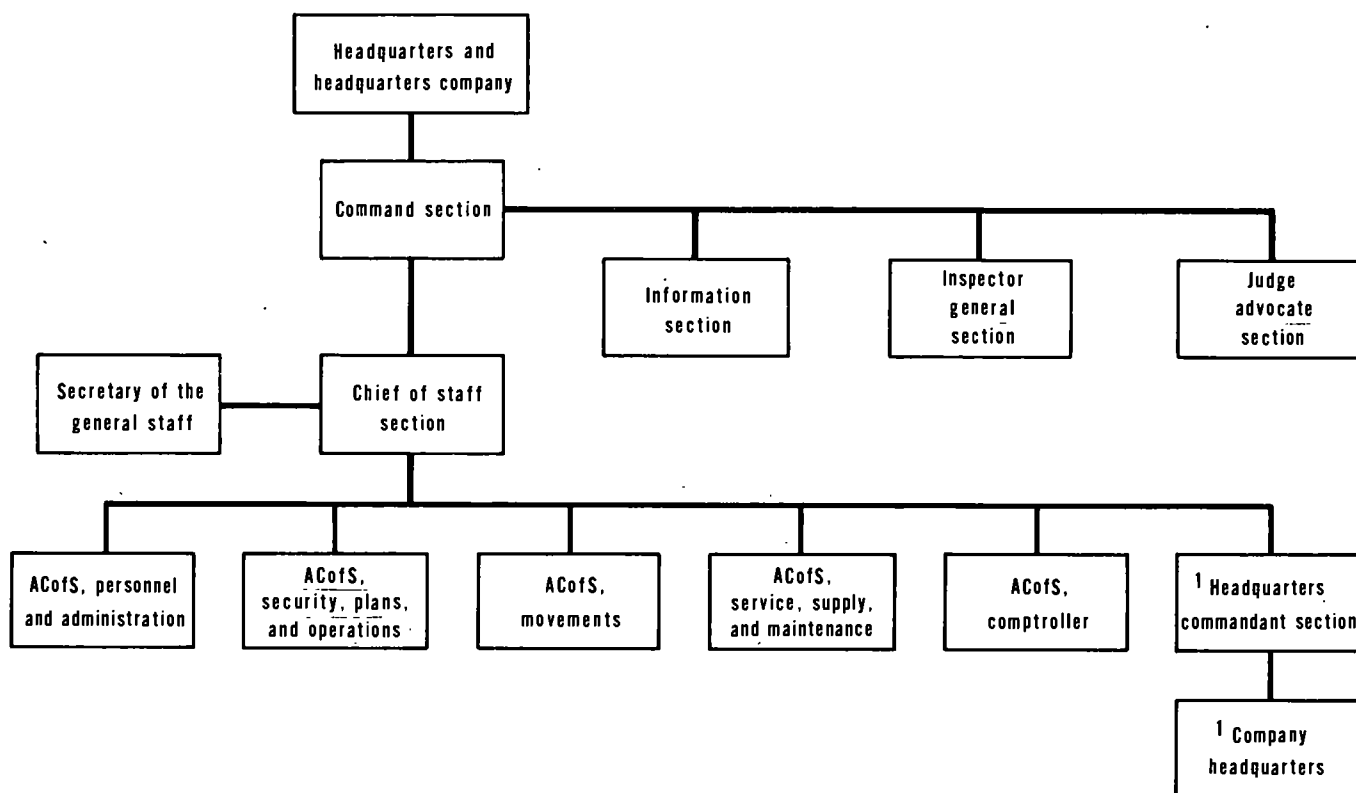
(3) To coordinate transportation service support matters with other US forces, TASCOM major commands, field army support commands (FASCOM's), and host and allied nations.

(4) To control indigenous transportation resources allocated to the TASCOM transportation service.

(5) As directed by TASCOM, to coordinate transportation operations with continental United States (CONUS) transportation agencies to insure interface of CONUS and theater transport and movements procedures.

c. Capabilities of the TRANSCOM headquarters and headquarters company are—

(1) Commanding and supervising the activities of all transportation headquarters units and other assigned or attached units operating



¹ Future TOE may combine headquarters commandant section and company headquarters.

Figure 2-6. Headquarters and headquarters company, transportation command (TOE 55-2).

the TASCOT transportation service required in support of a type field army.

(2) Staff planning and coordination of transportation combat service support activities as assigned by TASCOT.

(3) Providing liaison with other US forces, TASCOT major commands, FASCOT's, and host and allied nations as directed by TASCOT.

(4) Controlling, through its subordinate headquarters, the indigenous transportation resources allocated to the TASCOT transportation service.

d. The headquarters is not self-sufficient. It must receive administrative and communications-electronics support from other theater troop resources. Examples of required support are—

(1) The area support group's subordinate elements must provide personnel administration and personal services such as personnel accounting and administrative services and finance support. Medical and dental support are provided by units assigned to the medical command, which provide support on an area basis.

(2) The TOE does not authorize internal or external communications-electronics capability. This is provided by the attachment of a signal operations company (small headquarters) (TOE 11-147) to the command. The headquarters has three AN/VRC-46 FM radio sets mounted in the 1/4-ton trucks used for transport of the general officers. These radios provide only for emergency entrance into the radio-wire integrated (RWI) communications net operated by area communications signal units.

(3) The headquarters relies upon the TASCOT medical command for staff assistance. This is especially important when Army aviation units are subordinate to the command and for coordination of medical evacuation activities.

(4) Air transport requirements for liaison, command activities, and courier service are provided from the capabilities of the aviation service support company (TOE 1-407), which is normally attached to the transportation brigade to provide service for all COMMZ customers.

(5) During peacetime or when considerable host or allied nation transportation is used, the

headquarters may require attachment of an appropriate comptroller team (TOE 14-500).

(6) There are eight 1/4-ton utility trucks with drivers authorized in the company headquarters which provide administrative transport for the headquarters staff personnel on a pooled or taxi basis. This capability is in addition to three 1/4-ton utility trucks with chauffers, for the commander, the deputy commander, and the ACS, movements. Two additional 1/4-ton trucks are authorized for the headquarters commandant and the company commander. If administrative transport requirements of the staff exceed the unit's pooled capability, assistance is provided by the transportation car company (TOE 13-19), which is subordinate to the motor transport group.

2-6. Headquarters and Headquarters Company, Transportation Brigade (FASCOM or COSCOM)

a. The headquarters and headquarters company, transportation brigade (FASCOM or COSCOM), is normally employed in the field army area for command and control of transportation motor transport, terminal transfer, and air transport units engaged in providing an armywide service. It is normally assigned to FASCOM, but may be attached to a corps support command (COSCOM) employed in support of an independent or separate corps force. The headquarters is organized with an ACofS staff structure as indicated in figure 2-7.

b. The missions of the transportation brigade are—

(1) To command and control units employed in the transportation service supporting a field army or an independent corps force.

(2) To coordinate transportation service support matters with other US forces and host and allied nations as required.

(3) To control indigenous transportation resources allocated to the transportation service.

c. The capabilities of the transportation brigade are—

(1) Commanding and supervising the activities of all transportation and other assigned or attached units operating the transportation service in support of a field army or an independent corps force.

(2) Staff planning and coordination of transportation combat service support activities

assigned by the FASCOM or COSCOM headquarters.

(3) Providing liaison with US forces and host and allied nations as directed by FASCOM or COSCOM headquarters.

(4) Controlling, as required, indigenous transportation resources allocated to the FASCOM or COSCOM transportation service.

d. The transportation brigade is not self-sufficient and must receive assistance from—

(1) The servicing personnel activity for processing administrative actions, to include classification, personal affairs, maintenance of personnel records, personnel accounting, casualty reporting, and orders affecting personnel actions.

(2) The FASCOM or COSCOM medical headquarters unit for medical staff assistance (this is of primary importance when the brigade commands combat service support aviation units and for health and welfare of its troops).

(3) Attachment of team JD, transportation terminal service teams (TOE 55-560), for negotiating and supervising contracts for transportation and terminal services when such type services are required.

(4) Increase of staff personnel by modification TOE) (MTOE)) action, when water terminal and rail operations and maintenance units are employed in support of an independent corps force.

(5) Receiving finance support from a direct support finance unit.

(6) An appropriate direct support unit for organizational maintenance of organic communications equipment.

e. The unit may be used as a nucleus for organizing a transportation command headquarters (TOE 55-2) during the early stages of base development. Staff personnel increases are necessary, especially if command of water terminal and rail operations and maintenance units is contemplated.

f. The communications section is authorized telephone and teletypewriter equipment for operation of an internal telephone net and for communication with higher, lower, and adjacent headquarters through the area communications system. One AN/VRC-46 FM radio set is authorized for emergency entrance into the radio-wire integrated (RWI) service.

g. The headquarters is authorized sixteen 1/4-

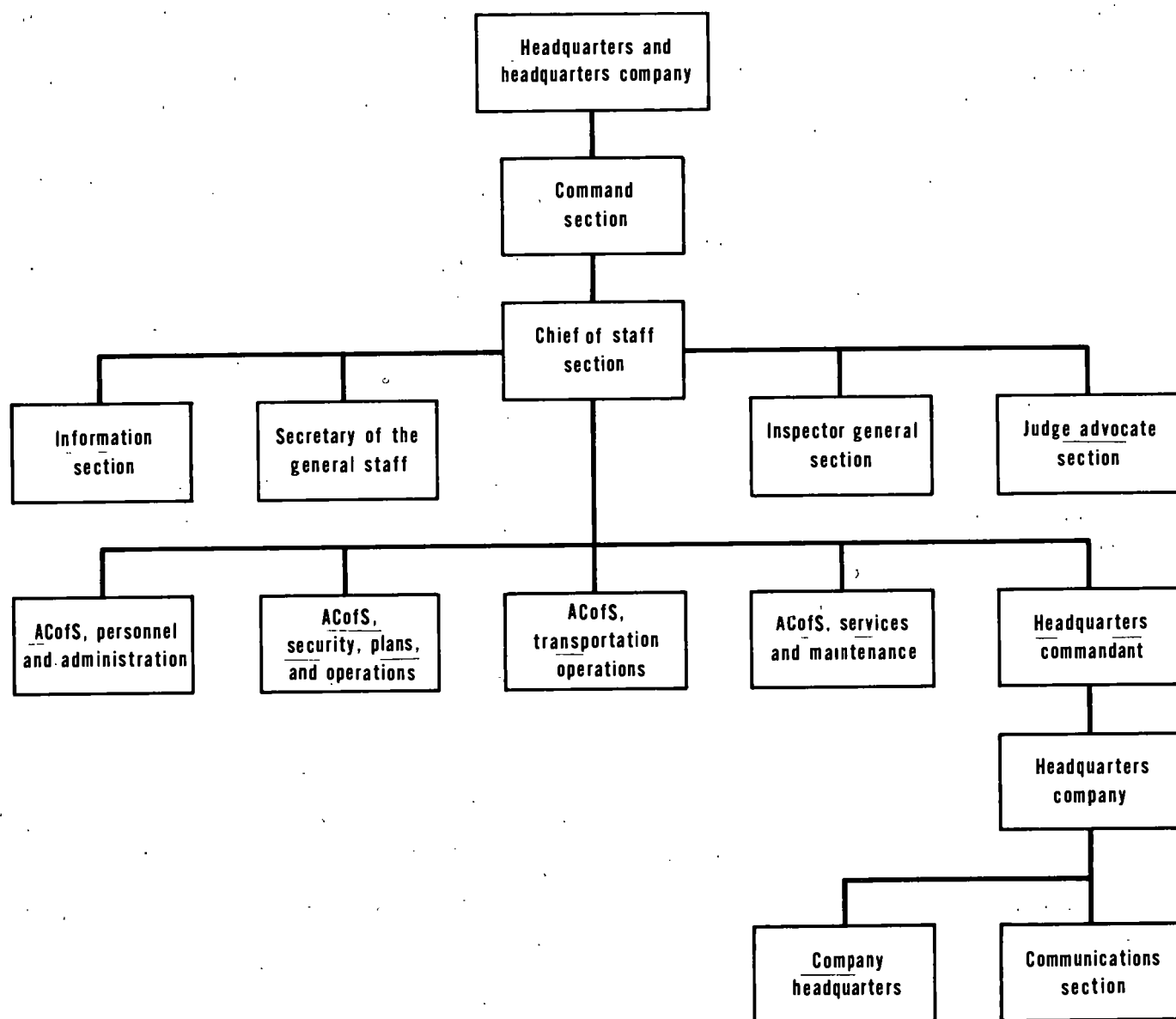


Figure 2-7. Headquarters and headquarters company, transportation brigade (TOE 55-62).

ton trucks, three 3/4-ton trucks, and two 2 1/2-ton trucks. The 1/4-ton trucks are used for command and control purposes, transport of staff personnel, and communications center activities. One 3/4-ton truck is authorized in the ACS, personnel and administration section, for administrative transport in support of the message center functions. One 3/4-ton truck is authorized in the ACS, supply and maintenance section, for transport of inspection teams. One 3/4-ton truck and two 2 1/2-ton trucks are authorized the company headquarters for unit supply, maintenance, and administration functions.

2-7. Headquarters and Headquarters Company, Transportation Composite Group

a. The headquarters and headquarters company, transportation composite group (TOE 55-52), is employed in support of a one-division independent force or a two-division separate corps force. It is normally attached to a combat service support brigade. The headquarters is organized with an S-type staff structure as indicated in figure 2-8.

b. The mission of the transportation composite:

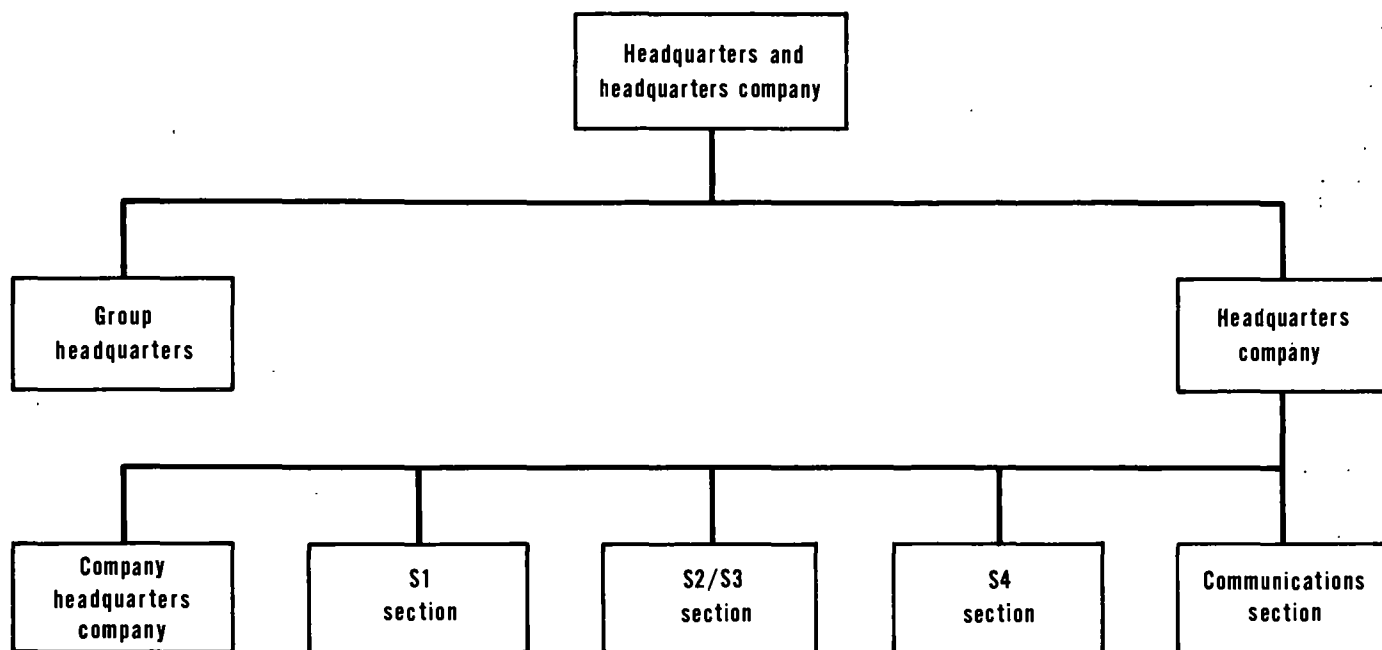


Figure 2-8. Headquarters and headquarters company, transportation composite group (TOE 55-52).

group is to command units employed in the transportation service supporting an independent division-size force or a two-division separate corps force.

c. Capabilities of the transportation composite group headquarters and headquarters company are as follows:

(1) Provides command of attached units (air transport, motor transport, rail transport, and terminal) required for operation of a transportation service in support of an independent division-size force.

(2) Provides a nucleus organization for development of a transportation brigade or command during the initial stages of a logistical base buildup.

(3) Develops plans and policies for employment of attached units.

(4) Coordinates rear area security and damage control activities of subordinate units with the designated commander.

d. The composite group headquarters must receive administrative assistance from the parent support brigade's personnel services company and finance unit. Medical and dental elements assigned to the force provide their support on an area basis. The headquarters also relies upon

the force's medical headquarters unit for medical staff assistance when commanding air transport units and for coordination of medical evacuation activities. The headquarters is dependent upon the appropriate direct support maintenance unit for organizational maintenance of organic communications-electronics equipment.

e. This unit can be used as a nucleus for a transportation command (TOE 55-2) or a transportation brigade (FASCOM or COSCOM) (TOE 55-62) during the early stages of base development of a larger theater. When organized as the nucleus for a transportation command, it will require the services of a signal small headquarters operations company (TOE 11-147) for internal communications support.

f. The unit has organic landline telephone and secure teletypewriter equipment which provides the headquarters with communications capability to higher and lower headquarters and with adjacent units through the area communications system. Two AN/VRC-47 and four AN/VRC-46 radios are authorized. One AN/VRC-47 radio is authorized in the communications section and used as the net control station; the other is authorized for use in the 1/4-ton truck which transports the group commander. Two of the AN/VRC-46 radios are in the S2/S3 section and two

in the S4 section; these are mounted in 1/4-ton trucks used by members of the staff.

g. There are nine 1/4-ton trucks, five 3/4-ton trucks, and two 2 1/2-ton trucks authorized the unit. The 1/4-ton trucks are authorized for command and control, to include staff visits to subordinate units, and for use by the staff chaplain. One 3/4-ton truck is authorized in the S2/S3 section, and two in the S4 section are used to transport command inspection teams. One 3/4-ton truck and two 2 1/2-ton trucks are authorized in the company headquarters for transportation support of unit administration, mess, supply and maintenance activities. One 3/4-ton truck is authorized in the communications section for messenger service and to provide mobility for the section.

2-8. Staff Functions

The staffs of composite transportation headquarters (command, brigade, and group) perform functions as outlined in FM 101-5, with the following exceptions:

a. Transportation Command (TOE 55-2).

(1) The ACS, security, plans, and operations, functions include only the G3 functions of intelligence, unit security, training, location and displacement of units, and coordination of signal communications operational functions of the command.

(2) The ACS, movements, is the staff officer for control of transport services. He is also the chief of the movement control center whose

personnel are authorized in the movement control agency (TOE 55-4) and teams from TOE 55-580.

(3) The ACS, movements, staff section is manned to provide staff assistance to the TASCACOM ACS, movements, or to the theater army ACS, movements, or to G4 if a TASCACOM is not authorized in the theater. This staff assistance is required because of the personnel space limitations imposed on the headquarters and headquarters company, theater army support command.

(4) The ACS, movements, accomplishes staff transportation functions normally performed by the staff G4.

b. Transportation Brigade (TOE 55-62).

(1) The ACS, security, plans, and operations, functions include only the normal G3 functions of intelligence, unit security, training, location and displacement of units, and coordination of signal communications operational functions of the command.

(2) The ACS, transport operations, provides staff policies and operational control of subordinate transportation capability.

(3) The ACS, transport operations, accomplishes staff transportation functions normally performed by the G4.

c. Transportation Composite Group (TOE 55-52). The transportation composite group organizational structure follows a normal S-type staff. Therefore, staff functions for this headquarters parallel those indicated in FM 101-5.

Section III. TRANSPORTATION MANAGEMENT SERVICES AND MODE OPERATIONS

2-9. Management Services

Transportation management services involve two major functions: transportation movements and highway regulation.

a. Transportation movements is concerned with planning, coordinating, programing, and supervising the allocation and use of the available transportation resources to meet the movement requirements of the command. To accomplish this, movement control centers (MCC's) are established at major support command headquarters and transportation movements offices are established at depots, terminals, and other critical points in the transportation system throughout the theater as required. Within a

theater army support command (TASCACOM) or a field army support command (FASCACOM), an MCC manages the movement capability available to that headquarters. Each MCC determines the mode and time of shipment and the estimated time of arrival at destination and advises all interested parties of the shipment. There must be a high degree of coordination between the MCC's in each headquarters to effectively regulate the movement of cargo, regardless of mode, between the communications zone (COMMZ) and the field army. This coordination is necessary to insure that throughout shipments from TASCACOM to units of the field army will be uninterrupted throughout their travel to the ultimate consignee. Since FASCACOM is responsible

for shipments originating in the army service area and the support brigades are responsible for shipments from their areas, each MCC must be kept informed of the status of all shipments, regardless of origin or destination and of when a shipment will pass through its area of responsibility. Management services are detailed in FM 55-10, Army Transportation Movements Management, and in chapter 4 of this manual.

b. Highway regulation is concerned with planning, scheduling, routing, and directing the use of the highway net available to the command so as to realize its maximum potential. This is accomplished by establishing a highway traffic headquarters at major commands having area jurisdiction and by establishing highway regulation points and traffic control posts to provide information to the highway traffic headquarters and to supervise the implementation of its plans. Detailed information concerning the organization and operating procedures of the movements service and highway regulation is contained in FM 55-10 and FM 55-11.*

2-10. Mode Operations

In a theater of operations, all modes of transportation—air, motor, rail, and inland waterway—will be used to transport personnel and cargo. Each has certain inherent capabilities and limitations which must be recognized and considered when integrating the various modes into a theaterwide system.

a. Air Transport.

(1) Air transport is characterized by high speed of movement and great flexibility of routes. Factors affecting the use of air transport include weather conditions, range and carrying capacity of the aircraft, availability of landing facilities, and degree of air superiority attained by friendly forces.

(2) Army air transport capability consisting of medium and heavy helicopter companies and the aviation service support company (chap. 7) is authorized in the transportation command in TASCOM and in the transportation brigade in FASCOM. Authority for authorization of aircraft units and aircraft assigned to an individual unit is currently contained in the study, Aviation Requirements for the Combat Structure of the Army II.

(3) Air transport is provided by allocated

Air Force capability and by Army aviation units. The Military Airlift Command provides inter-theater airlift, and tactical airlift forces provide intratheater airlift. Army air transport units are employed primarily in the combat zone. They perform combat service support tasks and supplement other Army aviation units engaged in combat support missions. Detailed information concerning the organization and operation of the air transport service is contained in FM 55-40. Information on tactical airlift operations is contained in FM 100-27.

b. Motor Transport.

(1) Motor transport is characterized by the ability to transport cargo and personnel from origin to destination without transfer to another mode. Motor transport is employed in a wide variety of tasks. It may be used in line haul operations as part of the interzonal service or in local haul operations such as terminal clearance, intradepot lifts, and transfer operations. It also serves as the connecting link between other modes, thus facilitating the provision of an integrated transportation service.

(2) Motor transport is provided by Army light, light-medium, medium, and heavy truck companies and car companies. The truck companies may be equipped with 2 1/2- or 5-ton trucks or with a variety of tractor-semitrailer combinations capable of transporting general, refrigerated, bulk liquid, or heavy and outsize cargo. These task units have organic supply, mess, maintenance, and administrative capabilities, which enable the units to operate independently with a minimum of support from the organization they are supporting. Detailed information concerning the organization and operation of the motor transport service is contained in FM 55-30.

c. Rail Transport. Rail transport is characterized by the ability to move large tonnages of cargo and large numbers of personnel over long distances. Of all the transport modes, rail is least affected by adverse weather. However, rail transport is less flexible than other modes because it must depend on a fixed roadbed. The usefulness of rail transport for military operations is dependent on the relationship between the direction of the roadbed and the scheme of maneuver. Virtually any commodity can be moved by rail, subject only to clearance restrictions along the route and the availability of specialized equipment; for example, refrigerator or tank cars. Rail

*To be published.

shipments normally originate near water terminals or depots in the COMMZ and move to destinations in the combat zone. Detailed information concerning the organization and operation of the rail transport service is contained in FM 55-20.

d. Inland Waterway. Inland waterway systems are noted for their capability to transport great tonnages of cargo and move heavy and outsize cargo not capable of being transported by other modes. The use of inland waterways in a theater of operations should be exploited to effectively utilize this economical transport mode. Inland waterway units are organized with appropriate teams from TOE 55-530, Transportation Watercraft Teams. Amphibian and landing craft units may also be employed as inland waterway carriers. Indigenous inland waterway movement capability and terminal facilities may be used to provide the military with additional transport capability. Detailed information concerning inland waterways is contained in FM 55-50 and FM 55-60.

2-11. Water Terminal Operations

a. Operation of water terminals in a theater is normally the responsibility of the theater army commander. The Army organization for operating the terminal includes terminal service and lighterage companies and the headquarters units required to supervise them.

b. Water terminal operations are conducted at fixed port facilities and over beaches. Because of the vulnerability of fixed port facilities to mass destruction weapons, water terminal operations may be characterized by the use of numerous small terminals rather than a few large ones. The degree of dispersion depends on, among other things, the nature of the enemy threat, the availability of suitable facilities, and the transportation net available to clear the terminals. Factors to be considered in dispersed terminal operations include increased requirements for personnel and equipment, greater difficulty in exercising command and control, and comparatively less efficiency in operations. Detailed information concerning water terminal organizations and operations is contained in FM 55-60 and FM 55-61.*

2-12. Maintenance and Supply

a. Aircraft. Aircraft maintenance and supply activities in the theater are accomplished by di-

rect and general support maintenance companies and by aircraft and missile repair parts companies. In the COMMZ, direct support maintenance companies are attached to area support groups. Aircraft general support maintenance companies and aircraft and missile repair parts companies are attached to field depots. In the combat zone, direct support and general support maintenance companies are attached to support groups in the corps and army support brigades. In the corps support brigades, aircraft repair parts are supplied by the aircraft platoon of the repair parts company (general support). In the army support brigade, general support aircraft repair parts are supplied by the aircraft and missile repair parts company (general support).

b. Motor Vehicle. Organizational maintenance of vehicles is the responsibility of the motor transport unit. In the COMMZ, maintenance and supply support for motor transport units is provided by direct support light equipment maintenance companies which are assigned to an area support group. In the field army and corps areas, the same support is provided by light equipment maintenance companies of the support group's maintenance battalion.

c. Rail. Rail maintenance consists of maintenance of rolling stock and locomotives, maintenance of way, and maintenance of communications used exclusively by the railway service. Direct support maintenance and supply are provided by the railway service. The supply and maintenance command and the engineer command are responsible to provide general support supply and maintenance when that level of service is required. The general support units may be attached to the railway service as it is the sole user of their services.

d. Marine. The transportation terminal organization is responsible for organizational and direct support maintenance of landing craft, amphibians, and harbor craft. A lighterage direct support unit provides direct support services and also provides marine-peculiar items of supply. General support maintenance and supply support is provided by floating craft general support companies, which are attached to field depots of the supply and maintenance command in TASCOC. Day-to-day operations of the general support company may be controlled by the transportation terminal organization because it is the sole user of their services.

*To be published.

2-13. Transportation Technical Intelligence

a. Transportation intelligence activities are performed by technical intelligence specialists, who are assigned to the military intelligence battalion in the field army. In the COMMZ, intelligence responsibilities are retained at the theater army level. For detailed information, see FM 55-8.

b. Although technical intelligence is a function

of military intelligence units, all transportation elements are collectors of information, which is processed through channels to the military intelligence units. Intelligence information is requested by the various assistant chiefs of staff, movements; staff transportation officers; and the security or intelligence staff officer of the various transportation command headquarters from the military intelligence units.

Section IV. INTERNATIONAL STANDARDIZATION AGREEMENTS

2-14. General

This manual is in consonance with certain international standardization agreements which are identified by type and agreement identification number at the beginning of each appropriate chapter in the manual.

a. DA Pam 310-35, Index of International Standardization Agreements, lists and cross-references all standardization agreements, both of a materiel and a nonmateriel nature, binding upon the United States. The several types of agreements applicable to military operations which may affect transportation operations, and the treaty organization blocs to which such agreements relate, are—

(1) NATO STANAG's (standardization agreements): Applicable to the nations of the North Atlantic Treaty Organization (NATO).

(2) CENTO STANAG's (standardization agreements): Applicable to nations of the Central Treaty Organization (CENTO).

(3) SEASTAG's (Southeast Asia standardization agreements): Applicable to nations of the Southeast Asia Treaty Organization (SEATO).

(4) SOLOG's (standardization of operations and logistics): Nonmateriel agreements among the Armies of the United States, the United Kingdom, Canada, and Australia (the ABCA nations). The term SOLOG now applies only to those nonmateriel agreements which were ratified and published before 20 September 1967. (See QSTAG, (5) below.)

(5) QSTAG's (Quadripartite standardization agreements): Materiel and nonmateriel agreements among the Armies of the United States, the United Kingdom, Canada, and Australia. The term QSTAG was adopted on 20 September 1967 and applies to all ABCA agreements (formerly designated as SOLOG's) ratified

and published subsequent to that date. (See SOLOG's, (4) above.)

b. United States military operations are governed by these various agreements when US forces are employed within the geographical areas over which treaty organizations exercise jurisdiction; thus, while operating in a European country which is a member of NATO, US forces comply with the provisions of applicable STANAG's (a(1) above).

c. In a number of instances the provisions of certain agreements have been accepted as doctrine by the United States and incorporated into the appropriate training and field manuals. This accepted and published doctrine then becomes applicable to Armywide operations. A prime example of this is the use of the metric system to indicate distances.

d. Although standardization agreements do not apply to military operations in the continental United States, those which may concern a transportation unit must be considered in training and operational phases to permit military personnel to become acquainted with their provisions. This is particularly true for units or groups of personnel earmarked for oversea assignment.

e. To minimize operational differences in the various types of standardization agreements of the several treaty organizations, it is practice for one organization to accept and publish under its auspices an agreement that has been ratified and published by another treaty organization. For instance, all or any part of a STANAG may be adopted by the SEATO organization and be incorporated into and published as a SEASTAG. The same identifying number is used wherever feasible. (DA Pam 310-35).

**2-15. Index of Transportation-Related
International Standardization
Agreements**

Appendix B is an index of standardization agree-

ments principally involving transportation matters. The index is extracted from DA Pam 310-35 to assist the staff transportation officer in performance of his functions.



CHAPTER 3

TRANSPORTATION STAFF DUTIES, FUNCTIONS, AND LOCATIONS (SOLOG's 27R and 31R)

Section I. GENERAL

3-1. Introduction

Sound performance of transportation staff duties and functions is of paramount importance to the successful accomplishment of a command's transportation service, which in turn impacts on the success of the command's missions or operations. Transportation or assistant chief of staff (ACS), movements, staff sections are authorized by most headquarters tables of organization and equipment (TOE). In certain TOE these positions may be subordinate to the ACS G4 or the director of services. When a transportation or ACS, movements, staff section is required but not authorized by TOE, a section may be established by the table of distribution and allowances (TDA) method or by preparation of a modification TOE (MTOE) (AR 310-49 and AR 310-31).

3-2. Assistant Chief of Staff, Movements

a. A staff transportation officer or ACS, movements, must possess high standards and be capable of outstanding leadership. In his position as a staff officer, he is in constant contact with all members of the general and special staffs of his organization and of higher, lower, and adjacent headquarters. Additionally, he normally coordinates transportation activities with military and civilian transport executives and technicians of host or allied nations.

b. The first concern of an ACS, movements, or a staff transportation officer must be that he and his staff and transportation movements, terminal, and mode operators provide a service to customers. He must instill this thought in the minds of his staff and the major transportation commanders so that it radiates to the individual transport operator, stevedore, and movements specialist. As in the commercial environment, "Service with a smile" should be a constant goal for all personnel employed in providing the command's transportation service.

c. Based on priorities established by the commander, the staff transportation officer must grant equal respect and service to all customers. Playing favorites only leads to complaints which eventually put him "on the carpet."

d. The staff transportation officer should never permit himself to become complacent because things are going right or a big movement has just been successfully completed. It is usually at the point where complacency sets in that the bottom falls out of something or everything.

e. When a shipping or receiving activity reports a problem area, the transportation officer must immediately realize that there is one. Many times the shoving aside of reported unsatisfactory situations becomes standard practice because we believe that no real problem exists. Whether the problem is real or imaginary is irrelevant. The fact that a customer believes that there is a problem should be sufficient grounds to spring a conscientious transportation officer into action to solve the problem regardless of its nature. In this respect the transportation officer should always attempt to place himself in the customer's position. Never dismiss him as if he does not know what he is talking about.

f. The old adage of "think before acting" increases in magnitude when transportation matters are considered. These, because they are primarily concerned with mobility, affect all aspects of the functions of combat. No half measures will do here. The transportation officer must use his imagination and trace the successful solution of a problem all the way to its final conclusion, always thinking how this solution as it moves through the system affects other operations. This can only be achieved through hard research, keen study of the data available, and thinking with imagination.

g. In preparing an action, if the transporta-

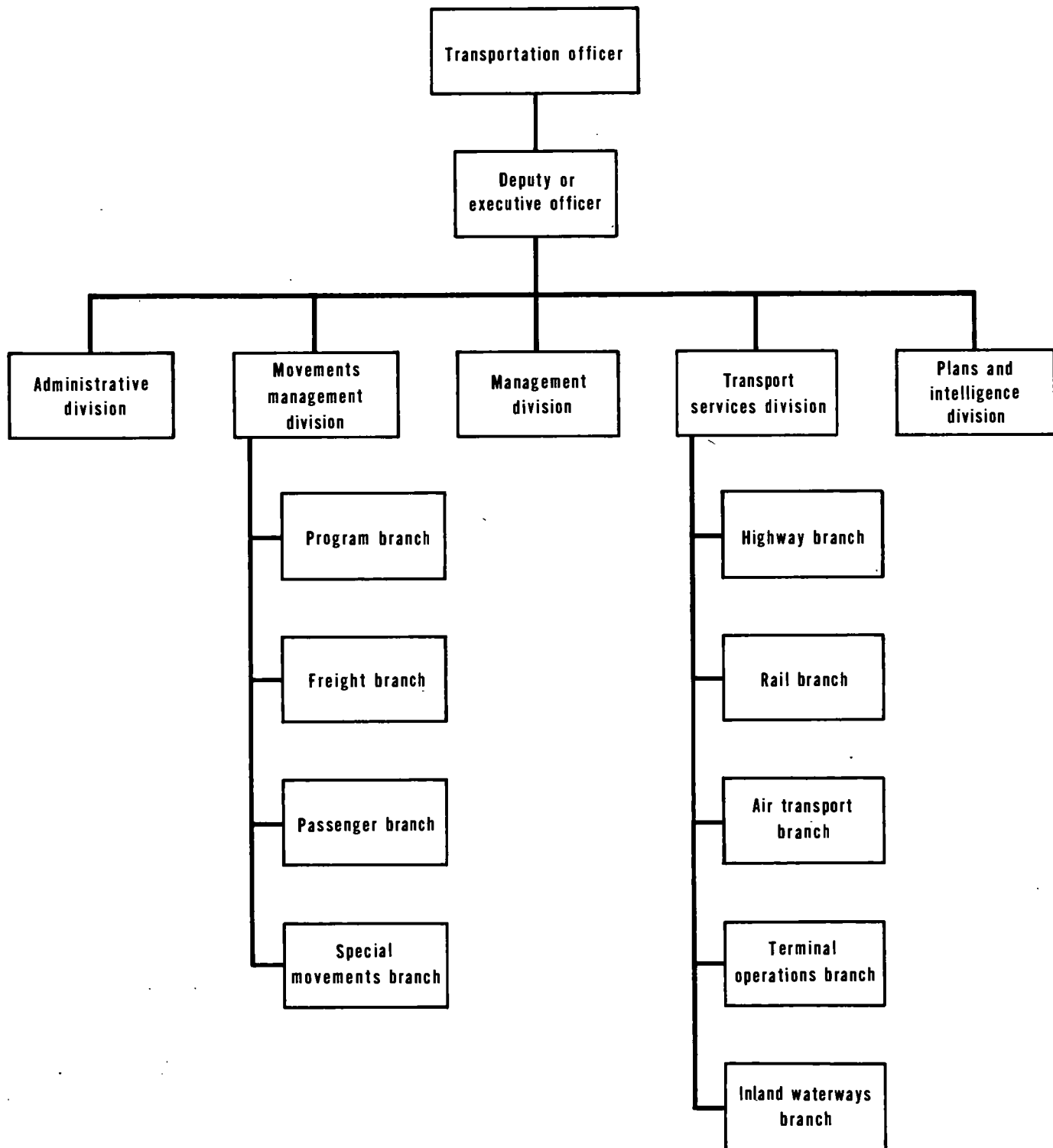


Figure 3-1. Type transportation staff organization.

tion officer finds that no coordination is required, he should go back and start all over again, unless this action has to do with the internal operation

of his office. Even in this case the decision must be communicated and this, in effect, is coordination.

h. In dealing with subordinate commanders, the transportation officer must always be absolutely frank. However, he must always remember that he is a staff officer, a representative of their mutual commander, but not the commander himself. He should render advice honestly and never leave a subordinate headquarters until he is convinced that the action he went there for has been completed and resolved.

i. The staff transportation officer must always assure himself that his commander is not embarrassed because of lack of information. Above all, he should never hesitate to give the commander the bad news. If a mistake is made in giving sufficient information, this should be made on the side of giving too much rather than not enough.

3-3. Staff Section Organization

a. The ACS, movements, or staff transportation officer is authorized by TOE or TDA a certain number of personnel by military occupation-

al speciality (MOS). However, a specific staff section may require realignment of personnel by MOS because of the modes of transport employed in the transportation service. For example, HQ TASCOTM authorizes railway officer and noncommissioned officer personnel, but a specific theater may not have a rail transport capability. By MTOE (AR 310-49 and AR 310-31), these personnel can be deleted from the section or the MOS may be changed to "beef up" the predominant mode staff subsection.

b. The organization of the transportation or ACS, movements, staff section depends on the transportation service requirements and the desires of the staff transportation officer. Figure 3-1 is an example of an internal organization for the ACS, movements, or transportation staff section. Detailed functions performed by the divisions of the type staff transportation section organizations are presented in paragraphs 3-4 through 3-6.

Section II. STAFF TRANSPORTATION FUNCTIONS AND RESPONSIBILITIES

3-4. Direct Functions

The following functions to be performed by an assistant chief of staff (ACS), movements, or staff transportation officer are quoted from FM 101-5:

a. Developing guidance, policies, and plans for the command's transportation services, to include movement control; highway regulation; motor, rail, air, and water transportation; ocean and inland transportation terminal services (except pipeline); and effective and economical procurement and use of passenger and freight commercial and military transportation services.

b. Preparing guidance and plans for the transportation portion of the command's support plans and orders, base development plans, rear area protection plans, and troop basis for future operations.

c. Providing coordination and liaison with the Air Force and the Navy, as required, for use of their transportation capability allocated for Army support and for use of Army transportation capability in support of these services.

d. Providing coordination and liaison with host or allied nations for use of their transportation capability allocated for use of US forces and for support of such nations with Army trans-

portation capability. This includes support of civilian-military operations and use of allocated national and local commercial transportation capabilities and facilities.

e. Coordinating the command's transportation plans with higher, lower, and adjacent headquarters as required.

f. Establishing policies and criteria for the command's movement control plan and programs required to implement throughput transportation of cargo and personnel.

g. Developing policies and criteria for operation of the command's highway traffic headquarters to include traffic circulation plans, traffic control plans, route classification, and assignment of controlled routes.

h. Making plans and recommendations, in coordination with the command's aviation officer for employment of Army air transport capability in combat support and service support operations to include use of airspace and air traffic control procedures.

i. Recommending location and adequacy of main supply routes and location of combat service support installations.

j. Establishing policies and procedures for ex-

aming and processing captured transportation equipment of nonintelligence value and providing technical staff assistance to the command's military intelligence unit as required.

k. Promulgating and implementing the command's operational security policies within transportation service areas of interest.

3-5. Transportation Staff Division Functions

The functions of the mode- and terminal-oriented transportation staff organization (fig. 3-1) are as follows:

a. *Administrative Division.* This division performs all internal administrative functions for the transportation staff, to include military and civilian personnel matters; authentication, publication, dispatch, and receipt of official correspondence; maintenance of library and office files; control of top secret and registered documents; and office space control.

b. *Movements Management Division.* In conjunction with the command's movement control center, the movements management division—

(1) Compiles and analyzes transportation requirements in the development of the transportation plan and program.

(2) Recommends allocation of the transport capacity.

(3) Adjusts transportation plans to changing requirements.

(4) Expedites shipments through subordinate commands and/or field transportation offices.

(5) Recommends regulations for employment of transport capacity.

(6) Coordinates with users of transportation and with the transport services, including the Air Force, concerning troop carrier command capacity.

(7) Prepares analysis of transportation movement activities to ascertain the effectiveness of transportation support and to improve the efficiency of movement policy and procedures.

(8) Prepares basic studies for negotiation of rates and transportation services with sovereign nations when required.

(9) Studies the transportation traffic pattern and net to provide recommendations to the ACS, movements, concerning necessary adjustments.

(10) Provides advice and direction in the usage of commercial carriers.

(11) Recommends location of in-transit storage areas and transfer points.

(12) Prepares policies for controlling, regulating, and expediting the movement of military-owned transporters and vans within the theater.

(13) Maintains current information on status of supply movement program implementation and recommends corrective action if required.

c. *Management Division.* The management division exercises staff action on fiscal matters and management policies and practices within the office of the transportation officer and exercises staff responsibility for action projects which are not of primary interest to any of the other divisions within the transportation officer's staff. The scope of management and fiscal matters should be such that a management division is justified before being established. If these functions are limited in scope, they may be more economically performed by other divisions.

d. *Transport Services Division.*

(1) Exercises, for the ACS, movements, operational control over the transport and terminal services of the command not assigned or attached to subordinate commands.

(2) Prepares and supervises training programs of transportation units under operational control of the command.

(3) Performs staff supervision over the transport and terminal services of the command.

(4) Advises the ACS, movements, and the movement control division of capabilities of the transport services and local civilian transport and terminal facilities and equipment.

(5) In occupied areas insures maximum availability of local civilian transport and terminal capabilities, as well as of Army transportation units.

(6) Recommends adjustments in the employment, distribution, and capabilities of mode operating units, equipment, and facilities.

(7) Performs command and technical inspections of transport units.

(8) Provides operating statistics and information to other divisions of the staff section as required.

(9) Assists the ACS, movements, in preparation of highway regulation plans and policies

and acts as a staff supervisory agency in the execution of these plans.

e. Plans and Intelligence Division.

(1) Initiates, coordinates, and prepares long-, medium-, and short-range plans based on a continuing estimate of the situation and such special transportation plans as may be required to meet emergencies.

(2) Coordinates the analysis and review of operational projects.

(3) Maintains liaison with the transportation planners of other services and commands.

(4) Assists the command's technical intelligence unit in collecting transportation information concerning foreign transportation systems, facilities, and materiel.

(5) Exercises technical supervision over intelligence activities of subordinate transportation staff sections.

(6) Provides technical assistance to ACS G2 on transportation technical intelligence matters when required.

(7) Establishes and/or implements security measures for safeguarding military information within the office of the transportation officer.

(8) Assists the military technical intelligence unit in selecting, processing, and evacuating foreign materiel, related documents, and reports to the continental United States for intelligence purposes as required.

3-6. Staff Responsibilities

a. The ACS, movements, or staff transportation officer is responsible for accomplishing all the functions listed in paragraph 3-4. Although he delegates the work to his staff, he alone answers to the commander. In addition to these functions, he also offers service to his customers and to transportation operating units. For example—

(1) If a new depot is established or a depot is having transportation problems, he must pro-

vide assistance to it. A new depot must be given immediate orientation and guidance concerning the command's transportation policies, procedures, and services. This assistance is provided by members of the transportation officer's staff, and/or he insures that the appropriate movement control element assists the depot in establishing its transportation office.

(2) At times a depot and a supporting transport mode, such as a motor transport company, become involved in problems which must be arbitrated or settled at higher level. Problems may be related to such things as conflicts of interest or personalities between the transport unit commander and a depot storage or shipping officer, failure of the depot to promptly load or unload, or failure of the transport modes to promptly spot or move a vehicle for loading or unloading. Whatever the problem, it must be recognized and resolved immediately. Necessary coordinating action may be taken by the ACS, movements, or by one of his staff officers, or it may be accomplished by the local transportation movements officer. Responsible coordinating action should be taken before the problem grows to one which requires the commander's personal attention.

b. The most important responsibility an ACS, movements, has is to provide adequate and timely service to his customers. This is accomplished within established priorities to assist in the accomplishment of the command's mission.

c. The ACS, movements, or staff transportation officer must possess professional competence to be an effective staff officer. This knowledge is gained by civilian schooling and civilian transportation and movement experience, completion of requisite military schools, practical experience in the field, and self-study through Army correspondence courses, graduate work, and college evening courses. This education and experience, coupled with maturity, common sense, initiative, integrity, and loyalty, will provide the foundation for successful accomplishment of his staff functions.

Section III. LOCATION OF ASSISTANT CHIEF OF STAFF, MOVEMENTS, AND TRANSPORTATION STAFF SECTIONS

3-7. Theater Army

Theater army is organized under a table of distribution and allowances (TDA) and is composed of the necessary staff sections required to support

its responsibilities. Theater army forces will normally include a magnitude of transportation forces to support water, motor, rail, and air transport lines of communication. Therefore, dependent upon the theater army commander's decision,

an assistant chief of staff (ACS), movements, staff section may be established. Otherwise an appropriate transportation staff element will be organized under the ACS G4.

3-8. Theater Army Support Command

The theater army support command headquarters is organized with an ACS, movements, staff section.

3-9. Field Army Support Command

The field army support command headquarters (TOE 54-12) is authorized an ACS, movements, staff section.

3-10. Corps Support Brigade

Headquarters and headquarters company, corps support brigade (TOE 54-22), is authorized an ACS, movements, staff section.

3-11. Divisions

a. All H-series TOE divisions have a transportation special staff section of two officers and two enlisted men located in the division headquarters and headquarters company. The G-series TOE armored, infantry, and infantry (mechanized) divisions have a transportation staff in the division support command (DISCOM) headquarters and headquarters company.

b. The airmobile division, in addition to the transportation section in the division headquarters has a transportation staff officer, a movement control section, and three movement control teams in the DISCOM headquarters. (TOE 29-42). Basic transportation staff functions are performed

by the division transportation officer, and day-to-day transportation operations are carried out by the DISCOM transportation officer. The DISCOM movement control section functions at the division base, and each of the three movement control teams functions as part of a forward service support section that supports a combat brigade.

c. The current G-series headquarters and headquarters company and band, support command, airborne division (TOE 29-52), had a division transportation section of two officers and seven enlisted men.

d. It is anticipated that all future army divisions will be authorized the transportation staff and movements management capability now authorized the airmobile division.

3-12. Separate Brigades

At this writing, a decision has not been made concerning the location of the transportation staff section in separate combat brigades. It will be authorized in either the brigade headquarters or the brigade's support battalion.

3-13. Corps and Army

Both the corps and army headquarters tables of organization and equipment authorize an assistant G4 for transportation staff functions.

3-14. Field Depots and Area Support Groups

The headquarters for field depots and area support groups are authorized a transportation section. These sections perform the staff transportation functions, as well as those associated with installation transportation services.

Section IV. PRINCIPLES OF MOVEMENTS (TRANSPORTATION)

3-15. General

The principles of movements (transportation) are applicable to all transportation services. They remain constant in peace or war and regardless of whether an automated or a manual system of operation is used. In succeeding paragraphs the four basic principles are presented, with a general discussion of their application.

3-16. Control of Movements Will Be Centralized to the Highest Level at Which It Can Be Adequately Exercised

a. This means that centralized control must be

exercised by the commander charged with providing integrated logistic support. He must be able to establish priorities, allocate critical resources, and identify and correct deficiencies. In carrying out this principle, theater army and separate corps commanders are assisted by their respective support command commanders. These commanders provide integrated logistic support, have a single movement control unit, and actually command most of the agencies involved in accomplishing movements.

b. In the field army, a variation from the principle exists. The field army support command (FASCOM) is responsible for providing inte-

grated logistic support to the field army. It has subordinate elements (support brigade) that support divisional units of the corps and all units in a corps area or in the army rear area. Movements management activities have been established at FASCOM and at subordinate corps support brigades. As a consequence, regulations and directives must be issued to provide a responsive, integrated, and coordinated movement control system throughout the field army area.

3-17. Movements Will Be Regulated

a. The introduction of automatic data processing equipment into supply and transportation operations and the requirement to maintain and support highly mobile forces have greatly increased the requirement and capability for regulating movements beyond that which existed in World War II and the Korean War. Most supplies are moved from theater army support command (TASCOM) rear depots (and in some cases from shipside) to army depots, division support commands, and direct support units. Since forward depots maintain primarily reserve or emergency stocks, they are generally bypassed in day-to-day operations. As a consequence, TASCOM transport equipment is constantly moving into and within the field army area and detailed regulation and coordination are required to prevent congestion and conflict of movements.

b. It is probable that in any future war US forces will have to share the available airfields and road, rail, and inland waterway capabilities with allied forces. In this case, only careful regulation of movements and close coordination can assure an efficient, rapid transportation system.

3-18. Movements Will Be Fluid and Flexible

This means that the transportation system can provide an uninterrupted flow of traffic and can adjust rapidly to changing situations. One of the major goals of combat service support is maximum throughput of supplies to reduce the requirement for rehandling materiel in the communications zone forward area and the field army rear area. Attainment of throughput goals and

effective use of all transport are impossible unless the capability exists throughout the transportation system to divert, reroute, and exchange or to take whatever action necessary to assure continuous movement of supplies to destination. For example, the successful accomplishment of a motor transport trailer transfer operation from the TASCOM area to the field army would not be possible without appropriate control.

3-19. Maximum Use Will Be Made of Carrying Capacity

a. This means more than just loading each transport vehicle to its optimum carrying capacity (that is a responsibility of the transport services and the users). Transport capability not used one day normally cannot be stored to provide an increase in capability for subsequent days. Similarly, a situation allowing fully loaded transport to sit idle is just as much a loss of carrying capacity as is a partially loaded vehicle moving through the system. Tactical considerations may preclude complete adherence to this principle (for example, vehicles designated and held for the movement of special weapons or aircraft delivering unit loads in combat support). This maximum-use principle penetrates the entire field of transportation movements. It is evidenced by the three principles previously discussed, but whereas these principles are primarily concerned with full use as obtained by formulating and regulating an integrated transportation system, the fourth principle is aimed at full use of the components of the system.

b. The requirements for transportation within a theater or a segment of the theater will fluctuate, depending on the tactical situation. However, transport will normally be in short supply and proper use must be made of the inherent advantages of each transport mode in accomplishing the commander's objectives. Air transport will normally be employed if speed of reaction is paramount or terrain features prohibit the use of other modes. Motor transport, with its capacity for wholesale and retail deliveries, complements the air mode and the fixed modes of rail and inland waterways.

Section V. TRANSPORTATION PLANNING

3-20. General

Planning is one of the major responsibilities of the assistant chief of staff (ACS), movements,

or staff transportation officer, and he performs planning functions in three general fields.

a. *Planning for Base Development.* A base de-

velopment plan is a plan for the facilities, installations, and bases required to support military operations. Its purpose is to achieve development of theater resources in accordance with the strategic mission and operational plans and to program the establishment of facilities as required to support military operations. Development of facilities, phasing of troop units into the area, and buildup of supplies will take place according to this plan. Base development planning is discussed in detail in FM 31-82.

b. Planning for Current Operations. This is the routine management planning necessary to assure continued, efficient operation. It includes revision of procedures to compensate for losses in capability or to take advantage of circumstances which permit more convenient working arrangements.

c. Planning for Future Operations. This includes planning for new operations and for new phases of the current operation. The discussion in the following paragraphs of this section is directed primarily toward the functions of the transportation officer and the plans and intelligence division within his office. However, for purposes of continuity, this discussion includes many elements of both base development and current operations planning.

(1) The plan for a new operation requires comprehensive and careful preparation that makes adequate provision for every detail of that operation.

(a) Based on the mission, troop requirements are computed and the phasing of those troops into the operational area is scheduled to coincide with the planned phases of the tactical operation. Concurrently, requirements for supplies and equipment are determined, supply levels are established, and buildup to those levels is scheduled.

(b) Initially, planning is based on assumptions, and estimates. Computations of requirements for troops, equipment, and facilities are based on generalized data such as that found in FM 101-10-1 or FM 55-15. As decisions are made and firm data developed, plans are revised and refined accordingly.

(c) Because of the importance of accuracy and detail, planners at all levels must achieve complete and continual coordination with other staff members.

(2) Planning for a new phase of a current operation may include some or all of the con-

siderations mentioned in (1) above. More often, it may require little more than a realignment of the organization and a relocation of units, installations, and facilities available at the time the plan is prepared. Reports of the operational experience of these units and activities furnish factual information on capabilities. These reports obviate use of the less exact data used in planning new operations.

3-21. Essential Elements of the Transportation Plan

A plan is the scenario for an operation. It indicates the method and schedule for the accomplishment of a mission. The transportation plan prescribes a course of action, including the methods of execution, which will furnish the transportation support required for an operation. This plan should have the flexibility necessary to insure continuity of transportation support if operational phase lines are not met or are exceeded. The planner should provide for adequate control during the operation and for coordinated transition from the current to the new operation. The plan should be as simple as is consistent with completeness.

3-22. Planning Considerations

Basically, transportation planning involves balancing requirements and resources. The requirements are those movements necessary to insure success of the operation. The resources are the units, equipment, and facilities and the methods and procedures established for utilizing them—available for performing the requirements.

a. Requirements.

(1) Each requirement for troops or supplies generates at least one requirement for transportation. Initially, transportation requirements can be expressed in terms of tonnage (or numbers of personnel) and distance. In later stages of planning, the tonnages become classes of supply and even distinct items and distances become routes between specific origins and destinations.

(2) It is the responsibility of shippers to submit estimates of requirements for transportation to the movement control center. However, if requirements are not submitted, the movements planner estimates the total requirement for transportation, based on the average supplies required for the forces to be supported and

on the average distances involved in the several phases of the operation. This estimate serves as a point of departure and as a general check on the realism of requirements submitted by users to recognize every supply or personnel action as a transportation requirement and to submit and refine those requirements as early as possible.

(3) Some requirements may be within the capability of transport organic to the requesting unit. The planner must determine to what extent such capabilities exist and urge their utilization. For example, general cargo and unit equipment can be moved in vehicles organic to the moving unit.

b. Resources. An assessment of transportation resources involves consideration of—

(1) Characteristics and capabilities of each transport service. These are summarized in chapters 5 through 9 and are provided in more detail in FM 55-15 and in the appropriate tables of organization and equipment.

(2) Capabilities of available civilian transport agencies. These can be determined only through surveying facilities and inspecting equipment. In planning new operations, this is seldom feasible; estimates must be based on information obtainable from intelligence reports or from civil affairs area studies.

(3) Troop basis for operation. The troop basis will seldom be broken out into separate ceilings for each service. Usually, it prescribes the maximum number of service troops authorized for support of the designated combat forces.

(a) Each service wants the troop strength that will enable that service to furnish complete support. The proposals to accomplish this usually exceed the ceilings, and competition for spaces develops. Since these conflicting proposals must be resolved by command decision, any unit finally placed on the troop list must have been fully justified.

(b) The transportation planner must visualize unit employment throughout the operation to prepare a valid troop list. For example, many terminal service units may be required for cargo discharge on several beaches during the initial phase of an operation. During a later phase, consolidation of functions at a large water terminal or extensive use of civilian labor may make some of these units unnecessary. The justification for the proposed troop list should indicate that these units can be reorganized as

terminal transfer companies to operate mode transfer terminals needed in forward areas.

(c) In some cases, the urgency of the operation requires that it be undertaken even though it is recognized that, by usual standards, sufficient personnel are not provided within the troop basis. The planner may be able to increase the capabilities of the troops available by one of the following measures:

1. Type B units may be used, with civilians replacing some military personnel. However, any applicable ceiling on civilians must be considered.

2. Reduced strength units may be used in those areas where the total capability of a full strength unit is not required.

3. Some functions may be performed in part or in whole by contract services.

4. In communications zone (COMMZ) areas, prisoner-of-war (PW) labor may be used to supplement manpower resources. Utilization of PW labor is subject to the provisions of international agreements and theater policy and must be closely coordinated with the appropriate major command provost marshal.

3-23. Balancing Requirements and Resources

The process of balancing requirements and resources determines whether or not the transportation capability is adequate to support the operation. It also establishes the workload for each segment of the transportation service.

a. The planner is responsible for providing complete transportation support capability, even though his planning data may be incomplete.

(1) Initially, requirements for transportation are stated only in general terms; for example: 1,000 tons of class I to arrive in the theater and be moved 80 miles inland during a particular phase of the operation. The planner totals the requirements and computes the resources needed to perform this workload at a daily average rate throughout the period. In planning, use of averages is necessary but, in operations, an average production day is unusual. In transportation resources are provided to produce only the average workload, the actual requirement for some days cannot be met. Therefore, the planner increases the quantities of transportation resources to compensate for days of low productivity. The amount of this increase is based in part on assumptions, but primarily its determination is based on the professional judgment of the planner.

(2) Providing complete transportation support requires consideration of factors other than the necessary operating units. The planner provides for adequate command control by organizing units according to their missions, proposed locations, and area of coverage. He coordinates with planners of other services to insure that their plans include the necessary capability for support of the transportation units. He makes recommendations as to the location of supply and service installations in accordance with their requirements for transportation.

b. A composite statement of the total requirements for transportation expedites the planning process. Each planner selects the format that he finds most usable. One may use a chart-type listing of requirements, showing origin, destination, amount, and service and class of supply of each shipment. Another may plot the same data on an overlay of the area, and a third may use a combination of both. The format selected should permit ready identification of such items as cargo discharge tonnage at water terminals, terminal clearance tonnage to include indication of areas to which it is cleared, movements of cargo to and from each area, and cargo which should be moved by air.

c. The process of establishing workloads for each transport mode varies according to the phase of operation. In the usual situation, the plan for the initial phase should provide sufficient motor transport for all cargo and personnel movements. Though some priority items will move by air, this quantity will normally be only a small percentage of the total supplies. In some situations, however, where physical barriers restrict surface movements or when speed of delivery is the determinant, the plan should provide for much or all of the supplies to be airlifted. After railways become available, most shipments compatible with rail shipment are allocated to this mode, within the system capacity. Motor transport is then used for shipments between points not on rail lines, for distribution operations, or for shipments in excess of the practical capability of the railway system. Whenever possible, one mode is used for through movement and the use of transfer points is avoided.

(1) Workloads are computed individually for each transport mode according to the characteristics and capabilities of the operating units of that mode. The final plan, however, must combine the units and operations of all modes into a single, integrated transportation system.

(2) During actual operations, the theater commander allocates a portion of the available airlift to theater army; this air movement capacity is utilized according to requirements. For planning purposes, however, air movement capacity is an assumption based on coordination with Air Force planners. This assumed capacity will seldom exceed the requirement for movement of priority cargo, but if there is an excess, planners should expect it to be required for non-programmed priority movements. Similarly, Army transport aircraft capacity will seldom exceed the amount required for direct support of combat operations. Therefore, the plan should not provide for routine movements by air of other than priority cargo.

(3) A transportation plan should indicate use of inland waterways when practical. The base development plan will provide for their use when such means are economically feasible. In some areas of the world, there are extensive inland waterway systems that are compatible with military requirements for transportation.

(4) The planner must be certain to include all types of workloads, such as the following:

(a) Successive shipments of some cargo (for example, from a terminal to a rear COMMZ depot, then from a rear to a forward depot, then from COMMZ to field army) and the attendant rehandling and documentation, as well as shipments of cargo direct from terminals to combat forces. It should be noted that throughput transportation is always the ultimate aim of the transportation service.

(b) Lateral shipments, rewarehousing requirements, and retrograde shipments.

(c) Requirements for internal support of each area, beyond the capabilities of transportation organic to the units in the area.

(d) Requirements for personnel needed to supplement TOE authorizations.

(e) Maintenance of equipment.

(f) Requirements for support of allied and civilian agencies.

(g) Evacuation of patients, with provision for rapid adjustment of operations and use of special terminals to expedite movement as required to assist the medical evacuation plan.

d. Based on the workload forecast for each mode, the planner computes the number of units required by type. Greatly simplified, this computation may be expressed as a fraction, whose numerator is the total job and whose denominator is the capability of one unit to perform that

job. The result of the division is the number of operating units needed. The requisite command and supervisory units are then added.

e. Units are phased into the operation according to the requirements for each phase. The planner must assure that the relative priority given to these units and supplies is appropriate to their intended use.

f. The plan must provide for transition from the current to the new operation. For example, when support units are phased out of the current operation, their support functions must be transferred to another similar unit.

3-24. Coordination

The transportation plan is but one portion of the plan for support of an operation. Complete coordination among all planners is mandatory to assure integrated support.

a. Since the original guidance is seldom valid throughout the planning period, constant coordination with the appropriate general staff agencies on the following major topics is necessary to keep the planning current:

- (1) Changes to the mission.
- (2) Commander's concept, including phasing.
- (3) Organization.
- (4) Assumptions, including approval of assumptions proposed by transportation planners.
- (5) Intelligence.
- (6) Changes to policies and standing operating procedures (SOP).
- (7) Priorities and allocations.
- (8) Supplemental requirements for support of US Navy, US Air Force, and allied elements and for civilian relief.
- (9) Security, to include security of classified information and materiel, protection of routes of communications, and rear area security protection.

b. Coordination with other special staff and operating agencies includes consideration of such matters as—

(1) Requirements for transportation.

(2) Proposed locations of depots and other installations requiring transportation support to include other transportation factors.

(3) Routes—to include construction, maintenance, and terminals, as applicable—of pipelines, railways, primary and secondary roads, waterways, and airways.

(4) Adequacy of service support to transportation installations and units, such as signal communications service and traffic control support.

(5) Compatibility of the transportation requirements submitted by users with the capability of supply agencies to ship or receive cargo.

(6) Recommendations for improving transportation support.

3-25. Transportation Plan

A sample transportation plan is presented in appendix C.

3-26. Transportation Annex to Administrative/Logistics Orders

a. The transportation plan is generally the basis for preparation of the transportation annex to the administrative/logistics order which supports an operations plan. For detailed discussion of operations plans and administrative/logistic plans, see FM 101-5.

b. The transportation annex to the administrative/logistics order is developed for the ACS G4 by the ACS, movements, or staff transportation section. A sample transportation annex is presented in appendix C.

3-27. Assistant Chief of Staff, Movements, Standing Operating Procedure Outline

An outline of an SOP for an ACS, movements, or staff transportation officer is provided in appendix C. This SOP outline is intended to provide a guide to ACS, movements, and staff transportation officers for development of an SOP for their specific staff section or division.



CHAPTER 4

TRANSPORTATION SERVICE MOVEMENTS MANAGEMENT AND HIGHWAY REGULATION

(STANAG's 2025, 2041, 2151, 2154, 2155, 2156, 2159, 2164;

SOLOG's 27R, 31R, 50R)

Section I. INTRODUCTION

4-1. General

This chapter will discuss in broad terms the Army's transportation movements management and highway regulation service provided in a theater of operations. It will also briefly discuss the organizations that are authorized the personnel and equipment to support these two functions. Movements management is discussed in detail in FM 55-10 and movement control units, in FM 55-11.*

4-2. Terminology

Throughout this chapter certain terms are used to describe movements activities, functions, and tools. Some of the terms are narrowly defined in service dictionaries; others in international agreements. In *a* through *j* below, these terms are defined in relation to the movements function.

a. Management—the process of establishing and attaining objectives to carry out responsibilities—consists of those continuing actions of planning, organizing, directing, coordinating, and controlling the use of men, money, materials, and facilities to accomplish missions and tasks. Efficient operation of the transportation service in a theater of operations involves two aspects of management:

(1) *Movements management* is planning, coordinating, programing, and monitoring the allocation and use of available transportation resources in accomplishing the commander's movement requirements, to include highway regulation functions. It is accomplished by movement control organizations at all levels.

(2) *Operative management* is a command

function exercised by commanders of transport units, transportation facilities, and shipping and receiving installations or activities to achieve maximum movement capability through efficient employment of personnel, materiel, and facilities.

b. A movement requirement is a shipper's request that has been approved by the appropriate commander to transport personnel or materiel. Normally, the commanders will be the support command commanders in the area (theater army support command (TASCOM), field army support command (FASCOM), support brigade, or corps support command).

c. A movement release is the procedure employed by a movement control authority to issue shipping instructions in response to a movement requirement.

d. Movement capability is the total capability of the shipping and receiving agencies and the transport services.

(1) The movement capability, as opposed to transport capability, of a shipping and receiving agency is its ability to receive, load/unload, and release transport during a stated period. Factors influencing this capability are amount of labor available, quantity and type of shipments to be handled, quantity and variety of materials handling equipment, and facilities of the installation.

(2) The movement capability of a transport service (mode) organization is based on the potential lift capability of the organization and the average turnaround time of the conveyances used. Factors affecting the potential lift capability are availability of operators, status of equipment, and average length of haul.

(3) Coordination of the capabilities of ship-

*To be published.

pers, transport services, and receiving agencies develops a total movement capability. Coordination includes vigilant observation of the limitations of facilities and equipment to prevent congestion at loading and discharge locations. The interdependence of terminal, transfer, and mode operations must be recognized, and schedules must be established to avoid delays in transit and in transfer, loading, and unloading.

e. A movements program is a command directive giving plans for future movements and is prepared by the transportation movements element and issued in the name of the commander. It is based on the commander's overall plan and is coordinated with all interested agencies. The movements program allocates the available transport mode capability to satisfy the movement requirements in accordance with priorities established by the commander. These priorities provide an orderly basis for resolving competition among the various users for the available transport capability. The movements program normally contains information of origins, destinations, and weight and cube of cargo or type and number of personnel to be moved. The movements program serves the following purposes:

- (1) It serves as the authority for shipping agencies to initiate action to obtain transportation.

- (2) It authorizes the transportation movements office to issue movement releases.

- (3) It directs the transport services to furnish the requisite capabilities.

- (4) It alerts receiving agencies to prepare to accept programmed shipments and to unload carriers promptly.

f. Critical movement locations are from the standpoint of movement control activities, those affecting the transportation system that must be kept under surveillance by movement control personnel to assure that they do not become bottlenecks that restrict the flow of traffic. In a theater of operations, critical areas may be in the following locations:

- (1) Air and water terminals.

- (2) TASCOM rear area depots.

- (3) International borders.

- (4) Transportation centers (for example, cities, terminuses of superhighways, and rail yards).

- (5) Intermodal transfer points.

- (6) General support/direct support supply

activities in the field army area when the tactical situation or terrain characteristics compel concentration of these activities.

g. An embargo is a command action temporarily limiting or prohibiting the acceptance or movement of shipments (SOLOG 27).

- (1) An embargo may be placed on an installation or area or on the services of a carrier. It is normally used to prevent or relieve congestion at shipping, receiving, or transshipping points, but it is also used when a serious disruption of a carrier's service occurs or is threatened. An embargo is imposed only when all other efforts—such as holding in transit, diverting to other installations, or using unaffected modes—have failed. When an embargo is imposed, prompt and continuing action must be taken by all concerned to alleviate the condition which caused the embargo and thereby to remove the embargo.

- (2) Because of its widespread effect, an embargo is imposed only by the commander having overall responsibility for all affected activities—the TASCOM, FASCOM, or field army commander.

- (3) An embargo must be specific in application and, when possible, should have a time limitation. Normally, an embargo is necessitated by a specific condition such as temporary inability to load or unload aircraft or trucks or disruption of a particular carrier's services to all installations in a specific area. An essential consideration in recommending an embargo is to limit its effect insofar as possible on other areas, installations, or activities within an installation.

- (4) The transportation movements field organization implements and supervises the application of embargoes. Transportation movements offices must maintain close contact with embargoed activities to prevent further congestion or disruption of services and to assure restoration of normal service as quickly as possible.

h. There are four types of shipments:

- (1) *Consolidated*—two or more shipment units moving to a break-bulk point or ultimate consignee under a single key transportation control number.

- (2) *Partial*—a shipment that has been separated at a shipping activity into two or more increments for onward movement with separate documentation for each shipment.

- (3) *Split*—a shipment unit that has been separated at a transshipment point into two or

more increments for onward movement with separate documentation for each increment.

(4) *Unit*—a shipment unit consists of one or more line item requisitions for shipment to one ultimate consignee under a single key transportation control number.

i. A *transportation unit* consists of one or more shipment units for shipment under one transportation control number moving on a single conveyance.

j. A *release unit* is a shipment or transportation unit that must be offered to a movement control management authority for transport commitment as established by command criteria. Release unit criteria vary according to the type of available transportation service. In the con-

tinental United States, for example, the basic release unit criteria are as follows: a shipment weighing 10,000 pounds or more; any shipment occupying the full visible capacity of a railway car, motor vehicle, or aircraft; and all oversize and overweight shipments. In oversea area, similar criteria are established, although a lower weight limit may be used to achieve more effective use of transportation resources. Military standard requisitioning and issue procedures (MILSTRIP) tend to generate numerous small shipments, particularly in classes II, IV, VII, and IX. However, automatic data processing equipment, appropriately programed, provides a means for consolidating these small shipments into release units and aids effective movements management.

Section II. MOVEMENT CONTROL UNITS

4-3. General

a. The following tables of organization and equipment (TOE) provide personnel and equip-

ment for performance of movement control and highway regulation functions in a theater of operations:

TOE	Title	Employed in
55-4	Transportation Movement Control Agency	COMMZ (TASCOM)
55-6	Transportation Movement Control Center (Field Army Support Command)	Field army service area (FASCOM) or corps area (independent COSCOM)
55-7	Transportation Movement Control Center (Corps Support Brigade) ..	Corps area (corps support brigade) or division rear area (independent division force support brigade)
55-540	Transportation Motor Transport Teams	Provides various motor transport team to include a highway regulation point team
55-580	Transportation Movement Control Teams	Provides regional and local transportation movements officer in the field in support of the movement control center

b. The basic TASTA-70 (The Administrative Support, Theater Army, 1965-70) movement control organizations were TOE 55-4T, 55-6T, and 55-7T. As originally developed in support of TASTA-70, these TOE authorized the necessary teams to operate regional and local transportation movements offices (TMO's) and highway regulation points. They also authorized personnel and equipment for the movement control center (MCC), the highway traffic headquarters (HTH), and the unit headquarters element. However, a Department of the Army decision deleted the team capability from these TOE. In planning the transportation movement control units required for a theater or force structure, the assistant chief of staff (ACS), movements,

or the staff transportation officer must remember to provide the capability for TMO's (regional and local field teams) from TOE 55-580 and select highway regulation point teams from TOE 55-540.

c. The number of regional and local TMO's and highway regulation points required for a specific communications zone (COMMZ) depends on the transportation nets, number of shippers and receivers, and geographical considerations. The original TOE 55-4T provided four regional, 21 A, 12 B, and 12 C TMO's and eight highway regulation points for a COMMZ supporting a 12-division force. The TOE 55-4T movement control teams relate to TOE 55-580 as follows:

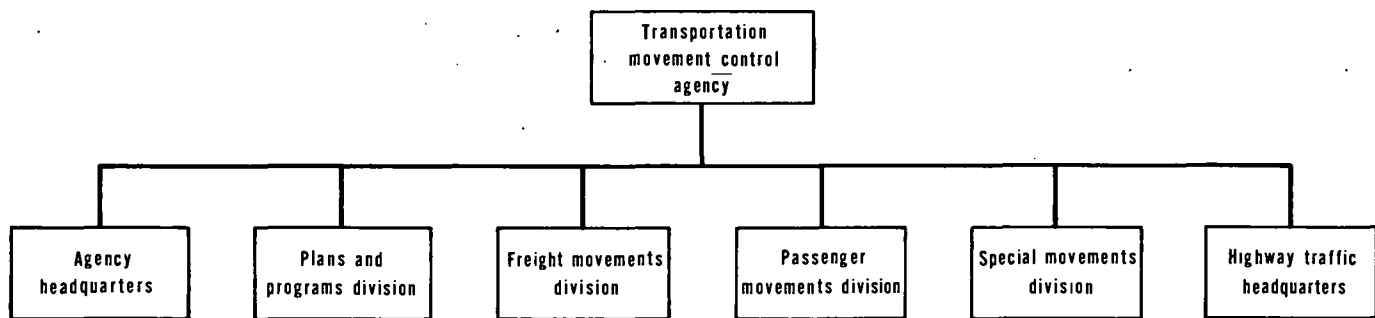


Figure 4-1. Organization of transportation movement control agency (TOE 55-4).

55-4T

Regional
TMO A
TMO B
TMO C

55-580

Team LD
Team LC
Team LB
Team LA

4-4. Transportation Movement Control Agency

a. The transportation movement control agency (TOE 55-4) is employed in a COMMZ which supports an 8-12 division field army. The organizational structure of the agency is shown in figure 4-1.

b. The mission of the transportation movement control agency is to operate the theater army support command (TASCOM) MCC, highway traffic headquarters, TMO's, and highway regulation points.

c. The capabilities of this unit are as follows:

(1) At level one strength:

(a) When augmented by teams from TOE 55-580, provides personnel and equipment to control movement of personnel and materiel (except bulk petroleum by pipeline) within the COMMZ and between the COMMZ and the field army.

(b) When augmented by teams from TOE 55-540, provides personnel and equipment to perform highway traffic headquarters functions within the COMMZ and between the COMMZ and the field army.

(c) Maintains liaison with transportation elements of other US forces and allied (or host) nations.

(d) Provides command and nontechnical supervision and training of the enlisted complement and provides limited unit level administrative, supply, and communications support to the technical movement control elements.

(2) Under levels 2 and 3 the unit is adapted

for reduced operational capabilities in decrements of 10 percent, from approximately 90 percent at level 2 to 80 percent at level 3.

(3) The unit is not adaptable to type B organization.

(4) When the mission or workload of the unit warrants, additional capabilities must be provided by a modification TOE (MTOE) under provisions of AR 310-31.

(5) The unit is dependent upon—

(a) Augmentation of appropriate teams from TOE 55-540 and TOE 55-580.

(b) Adjacent units for mess and organizational maintenance.

(c) The personnel service activity for personnel administration.

(d) The transportation command automatic data processing unit (TOE 29-550) for support of the MCC and highway traffic regulation activities.

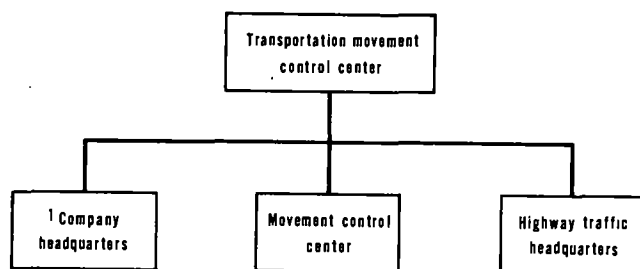
(6) When required by the local situation, interpreters and local transport technicians may be authorized by the appropriate commander.

(7) Individuals of the organization can engage in effective, coordinated defense of the unit's area or installation.

d. The unit is assigned to the TASCOM transportation command (TRANSCOM). The plans and programs, freight movements, passenger movements, and special movements division are the basic elements of the TASCOM MCC. The TRANSCOM ACS, movements, in the chief of the MCC and will coordinate the activities of the four internal divisions of the MCC. A highway plans officer directs the activities of the highway traffic headquarters.

4-5. Transportation Movement Control Center (Field Army Support Command)

a. The transportation movement control center (FASCOM) (TOE 55-6) is employed in the field army service area in accordance with TASTA-70 doctrine. Before TASTA-70, one movement control TOE unit provided movement control activities in the corps and field army service areas. Movement control center units are now organic to each corps support brigade (TOE 55-7). Thus, TOE 55-6 is normally employed in the field army service area only. The organizational structure is shown in figure 4-2. The movement control center (FASCOM) may also be used to provide for movement control activity requirements of a corps support command (COSCOM) which supports an independent or separate corps size force.



¹ Company headquarters for TOE 55-6 and detachment headquarters for TOE 55-7.

Figure 4-2. Organization of transportation movement control center (field army support command) (TOE 55-6) and transportation movement control center (corps support brigade) (TOE 55-7).

b. The missions of the FASCOM transportation movement control center units are—

(1) To command and supervise attached or assigned teams engaged in movement control and highway regulation activities.

(2) To provide movements management for moving personnel and materiel (except bulk POL by pipeline) within, into, and out of the FASCOM area of responsibility.

(3) To provide highway regulations within the FASCOM area of jurisdiction.

(4) To maintain liaison, as required, with transportation elements of other US forces and with allied and host nation transportation agencies.

c. The capabilities of the unit are as follows:

(1) At level 1 strength:

(a) When augmented by teams from TOE 55-580, provides a central organization and field offices necessary to perform movement control services in support of a field army.

(b) When augmented by teams from TOE 55-540, provides a central organization and field offices necessary to perform highway regulating services in support of a field army.

(c) Maintains liaison with transportation elements of other U.S. forces and allied and host nation transportation agencies.

(2) Under levels 2 and 3 the unit is adapted for reduced operational capabilities in decrements of 10 percent, from approximately 90 percent for level 2 to 80 percent for level 3.

(3) The unit is not adaptable to type B organization.

(4) The unit is dependent upon—

(a) Augmentation by appropriate teams from TOE 55-540 and TOE 55-580.

(b) An adjacent unit designated by the FASCOM headquarters commandant for mess and organizational maintenance support.

(c) A personnel service unit for personnel administration.

(5) When required by the local situation, interpreters and local transport technicians may be authorized by the appropriate commander.

(6) Individuals of this organization can engage in effective, coordinated defense of the unit's area or installation.

d. This movement control center unit is assigned directly to the FASCOM headquarters and is not subordinate to the transportation brigade (TOE 55-62). The chief of the movement control center (MCC) is organic to TOE 55-6. He receives broad movement policy guidance through the FASCOM ACS, movements. Note that this is different from the TASCOC MCC (para 4-4d).

4-6. Transportation Movement Control Center (Corps Support Brigade)

a. The corps support brigade movement control center (TOE 55-7) is employed in the corps area in accordance with TASTA-70 doctrine. This is a new unit in the field for movement control activities. The organizational structure is the same as for the transportation movement control center (FASCOM) (fig. 4-2) except that the company headquarters is designated as a detachment headquarters. The difference is in the number of personnel authorized: TOE 55-6 has 12 officers

and 32 enlisted men, and TOE 55-7 has 9 officers and 29 enlisted men. It should be remembered that both movement control center units must be authorized attachment of regional and local TMO teams from TOE 55-580. The corps support brigade movement control center unit is also used to provide movement control for a support brigade with supports an independent division force.

b. The missions of the corps support brigade movement control center unit are—

(1) To command and supervise attached or assigned units and teams engaged in movement control and highway regulation activities.

(2) To provide movements management for moving personnel and materiel (except bulk POL by pipeline) within, into, and out of the corps area.

(3) To provide highway regulation services within the corps area of jurisdiction.

(4) To maintain liaison, as required, with transportation elements of other US forces and allied and host nation transportation agencies.

c. The capabilities of the unit are as follows:

(1) At level 1 strength:

(a) When augmented by teams from TOE 55-580, provides a central organization and field offices necessary to perform movement control services in support of a corps.

(b) When augmented by teams from TOE 55-540, provides a central organization and field

offices necessary to perform highway regulating services in support of a corps.

(c) Maintains liaison with the transportation elements of other US forces and allied and host nation transportation agencies.

(2) Under levels 2 and 3, this unit is adapted for reduced operational capabilities in decrements of 10 percent, from approximately 90 percent for level 2 to 80 percent for level 3.

(3) This unit is not adaptable to type B organization.

(4) This unit is dependent upon—

(a) Appropriate teams from TOE 55-540 and TOE 55-580.

(b) An adjacent unit designated by the support brigade headquarters commandant for mess and organizational maintenance support.

(c) A personnel service unit for personnel administration.

(5) When required by the local situation, interpreters and local transport technicians may be authorized by the appropriate commander.

(6) Individuals of this organization can engage in effective, coordinated defense of the unit's area or installation.

d. The movement control center unit is assigned directly to the corps support brigade headquarters. The chief of this movement control center is organic to TOE 55-7. He receives broad movement policy guidance from the corps support brigade ACS, movements.

Section III. MOVEMENT CONTROL CENTER OPERATIONS

4-7. Theater Army Support Command Movement Control Center

a. *General.* The theater army support command (TASCOM) movement control center (MCC) is normally established as an element of the staff of the transportation command assistant chief of staff (ACS), movements. It provides an activity which balances and coordinates the capabilities of the shipping, transporting, and receiving activities to provide a responsive transportation system capable of satisfying the TASCOM commander's movement requirements. The MCC acts as the nerve center of the entire TASCOM transportation system through its planning and day-to-day transportation movements management.

b. *Mission.* The mission of the MCC is to

provide movements management services for TASCOM. These services include negotiating for and procuring allied and host nation transportation, recommending movements management procedures, providing a smooth-working interface with CONUS (continental United States) and field army transportation activities, and acting as the theater container and roll-on/roll-off trailer control agencies.

c. *Organization.* The TASCOM MCC is composed of the plans and programs, freight movements, passenger movements, and special movements division of the movement control agency. The MCC is supported by the agency headquarters. The chief of the MCC (transportation command ACS, movements) has direct access to and control of the regional transportation movement

offices (TMO's) which he exercises through his staff divisions of the MCC. The chief of the MCC plans, supervises, and directs the activities of the center. He establishes standards for all movements activities and controls and manages operations to provide for movements support in conformity with policies and decisions of higher headquarters.

(1) The plans and programs division is responsible for developing, coordinating, publishing, and distributing the movements program and, as directed, for preparing transportation movements plans and annexes in support of TASCOM logistic or contingency plans. New or modified directives issued by the commander of the theater, the theater army, TASCOM, or the transportation command are reviewed by the division to determine their effect on the movements system. The division recommends procedures for implementing these directives and prepares supplementing directives as required. The division exercises management and comptroller type functions, as required, for the MCC.

(2) The freight movements and passenger movements divisions monitor the execution of the movements program. Based on special guidance from higher headquarters, on movement status, and on movement requests received, they recommend changes to the movements program, where additional TMO's are required, or where a probable relocation of transport mode operating units would be advantageous. These divisions also have responsibility for manually processing as exceptions those movements actions which are outside automatic data processing (ADP) machine program parameters.

(3) The special movements division acts as the theater container and roll-on/roll-off trailer control agencies and is responsible for allocating the use of scarce special purpose equipment to various lifts, for coordinating large unit movements involving both personnel and equipment, for coordinating and monitoring the movement of special ammunition, and for arranging and monitoring such other special movements as may arise from time to time that require close supervision or monitoring.

d. Location. The MCC is so located that trips to and from the transportation command headquarters can be made quickly with ground transportation. However, it is far enough from the transportation command headquarters and the ADP element to minimize simultaneous damage to all these critical facilities.

e. Communications. Since efficient traffic management demands prompt transmission of information and instructions, a reliable signal communications system is mandatory. With subordinate offices and teams dispersed over the entire communications zone (COMMZ), the problem becomes more complex because of the increased distance between the headquarters and its subordinate elements. The theater operations signal command provides access facilities (radio relay and wire carrier) for each transportation movements activity which requires access to the theater area communications system. When the theater area communications system cannot adequately support the movement control organization, the theater commander may authorize the attachment of appropriate signal teams organized under TOE 11-500.

(1) The MCC and each regional TMO should have a radio set such as an AN/VRC-46, which permits entry into the radio-wire integrated (RWI) system of a major headquarters if necessary.

(2) Each field office and the MCC may have had an electric typewriter capable of transmitting directly over wire facilities or receiving or transmitting punched paper tapes or edge-punched cards. Tape-to-card converters give the machine the additional capability of receiving and transmitting conventional hole-punched cards such as the transportation control and movement document punchcard formats. The MCC uses a display unit in conjunction with the electric typewriter.

(3) Common user telephone is provided at the MCC and at each field office for contact with local users of transport, transport mode operators, and supporting and supported activities.

(4) The computer serving the MCC is equipped to receive and transmit information essential to movements management.

(a) The MCC computer has computer-to-computer links with computer centers at the field army support command, the personnel and administration center of the TASCOM personnel command, and the TASCOM materiel management center. It is also linked with the Military Traffic Management and Terminal Service in CONUS.

(b) TMO's may have transceiver links to the MCC.

(c) Transceiver facilities will be provided by the appropriate signal operations company sup-

porting the major headquarters of TASCOM. Standard links are used by other units in the TASCOM area. Keyboard inquiry devices and high speed hard copy printers are provided theater army, TASCOM, and transportation command headquarters.

4-8. Theater Army Support Command Transportation Movements Offices

a. General. The MCC chief is charged with managing the movement capability of the TASCOM transportation system. To obtain effective field coverage of transportation movements, that portion of the COMMZ through which the transportation system runs is divided into transportation movement regions. The number and size of the regions vary with the volume and complexity of movements, the number of critical areas, and the geographical spread of the transportation system. Regional boundaries do not necessarily coincide with political boundaries, nor with geographical boundaries established by other military elements. Branch or district TMO's are established within each region. The regional TMO's are responsible to the MCC for controlling and supervising all movements matters pertaining to that portion of the interzonal transportation system which passes through their respective territorial areas. The district TMO's usually have subareas of responsibility. TMO's may be responsible for the movements activities for a single installation or activity or for a small area.

b. Mission. The mission of the TMO is to act as a coordinator between users and transport mode operators and to assist commanders in carrying out movements, both programed and nonprogramed.

c. Organization. TMO's are organized under their respective TOE 55-580 teams to meet anticipated needs and functions over a wide range of conditions; however, each individual office must be staffed to meet the needs of its particular location. To meet the needs of the MCC, the office will generally be organized into two primary sections: freight and passenger. The sections prepare and maintain records and submit reports to higher, adjacent, and lower headquarters on the transportation situation, requirements, and capabilities and the carrying out of movements within their respective areas. These sections receive and process transportation requests from users of transportation and prepare the worksheets used on movements actions and requests which are

used for data processing. The receive and process reports of shipments and perform other duties delegated by the chief of the branch or region.

d. Capabilities. The capability of each TMO is dependent upon the particular table or organization and equipment (TOE) paragraph under which it is organized. Each is capable of providing, within its size and communications limitations, 24-hour supervision, coordination, and monitoring of the movements program for the activity or area which it supports. The TMO is capable of maintaining status information on shipments, investigating and taking necessary action to avoid delays in movements, and preparing movement instructions.

e. Location. The exact site for establishment of a TMO can be effectively selected only after analysis of the functions to be performed by the office and after a personal reconnaissance of the transportation and geographic characteristic of the area. Reconnaissance must take into consideration the availability of adequate facilities for assigned personnel and of signal communications. A central location which allows close and constant coordination with the installations and units to be served and with transport mode operators is considered ideal.

(1) The movement control agency headquarters commander is responsible for arranging billet and office space and for mess, supply, maintenance, and mail support for the TMO's. Usually, arrangements are made through the regional TMO with the area support group in accordance with command procedures. As the team must operate 24 hours each day, consideration must be given to distances and facilities for movement between the office and billet and to providing for meals at other than regular mealtime hours.

(2) If inadequacy of facilities or distances from the job make it impractical to attach TMO personnel to a nearby unit or installation for messing or quartering, local facilities may be used. Use of local facilities must be in accordance with established command policy, and care must be exercised to assure that standards of adequacy, cleanliness, and performance exist at all times.

(3) Once the office has been located and established, appropriate signs are erected outside the office and at strategic points in the vicinity of the office. The signs will be prepared in accordance with STANAG 2159 and will be erected in accordance with local standing operating procedures.

(4) Attachment of personnel operating a TMO located within an installation will be for mess, supply, quarters, and maintenance only. Full attachment to an installation will require the TMO personnel to perform other duties which usually interfere with proper performance of their duties.

f. Communications. Communications equipment and personnel organic to TMO's in the field are authorized by pertinent TOE. If authorized communication equipment is not adequate or is insufficient in quantity, additional resources may be obtained through a modification to the existing TOE in accordance with AR 310-49.

4-9. Field Army Support Command Movement Control Center

a. The functions of the MCC's of the field army support command (FASCOM) and the support brigades generally parallel those of the TASCOC MCC. The chief of the FASCOM or support brigade MCC normally divides the center into movement plans and programs, passenger, and freight sections with functions comparable to the divisions in the TASCOC MCC. Additionally, the freight and passenger sections of FASCOM and support brigade MCC's carry out those functions that are performed in the TASCOC MCC by the special movements division.

b. The FASCOM MCC implements movements management policies and regulations established by the FASCOM headquarters and, when so desired, establishes regulating policies and procedures. It prepares the FASCOM movements program, based on movement requirements submitted by field army and FASCOM agencies and on information from the TASCOC MCC as to personnel and materiel that are being shipped from the COMZ to the field army area.

c. In accordance with policies of the commander, the FASCOM MCC allocates armywide transport capabilities of the FASCOM transportation brigade and those facilities of the TASCOC interzonal transportation service or of any other source allocated to FASCOM for its use. These facilities may, under certain circumstances, be composed of rail or inland waterway capability or may include a portion of the Army allocation of intratheater Air Force airlift capability. The use of intertheater airlift operating into or out of the field army area will be coordinated with the TASCOC MCC.

d. The FASCOM MCC is responsible for plan-

ning, coordinating, and monitoring all through-put shipments originating in the army service area from origin to final destination.

4-10. Corps Support Brigade Movement Control Center

a. The corps support brigade MCC has primary responsibility for implementing those portions of the FASCOM movements program requiring shipment by support brigade transportation and for performing the necessary planning, programming, and monitoring essential to transportation movements management in support of the corps.

b. When preparing the support brigade movements program, the MCC includes those portions of the FASCOM movements program that pertain to shipments from installations within the corps area or that use transport capability of the corps support brigade. However, most of the movements with which the corps support brigade MCC will be concerned will be movements which, because of the time element, cannot be shipped from origins in the army rear area of the COMZ. The urgency of these movements requires that a flexible transportation system be maintained and dictates close liaison with FASCOM and field TMO's since the air transport capability of FASCOM will frequently be called upon to execute the movements. Though the FASCOM Army transport aviation units may be physically located in the corps area, the FASCOM MCC may retain allocation authority for their transport capabilities.

c. The corps support brigade MCC allocates the capability of transport units assigned or attached to the corps support brigade. The attached capabilities may include, under certain circumstances, truck units attached from the FASCOM transportation brigade for a particular operation. Interzonal transport of the TASCOC or Army-allocated intratheater Air Force airlift in the corps area may be made available on a mission basis by the FASCOM MCC after coordination with the TASCOC MCC. Normally, such transport will be used for retrograde movement of materiel and for evacuation of wounded, refugees, or prisoners from the corps area.

d. When the army support brigade is provided transportation over which it has allotment authority, movements management will be provided to the brigade by the FASCOM MCC and its subordinate TMO's.

4-11. Field Army Support Command and Corps Support Brigade Transportation Movements Offices

The operations of TMO's attached to the FASCOM and corps support brigade MCC units are generally the same as outlined for the FASCOM TMO's (para 4-8); only the area of employment is changed.

4-12. Air Terminal Movement Control Teams

a. Air terminal movement control teams are authorized in TOE 55-580, teams LE and LF. Team LE is designed to operate at large Air Force terminals handling 1,500 to 3,000 short tons of Army cargo per day to include retrograde shipments. Team LF is designed to operate at Air Force terminals or Army air terminals handling up to 1,500 short tons of Army cargo per day, to include retrograde cargo. These two air terminal movement control teams replace the former air traffic coordinating offices (ATCO's), which were usually formed from in-theater assets and were not specifically organized under a TOE.

b. The new air terminal movement control teams are authorized transportation movement control, adjutant general (for personnel movements), supply, medical service (for medical supply movement functions), and communications personnel. Each team is multifunctional and can—

(1) Provide personnel services information to units and individuals passing through the air terminal, similar to the services provided by the American travelers aid society.

(2) Provide limited supply identification personnel to provide immediate identification of frustrated cargo and to report it to the materiel management center (MMC), which in turn provides information to the MCC on shipping instructions.

(3) Provide organic communications equipment for contact with the MCC and the MMC.

c. The air terminal movement control teams will normally operate under direct control of the command's MCC. This is necessary because air shipments are usually high priority, emergency, or high-dollar-value critical items of supply and personnel movements. Delay of these shipments at the air terminal is avoided by direct contact with the MCC and the MMC.

d. The air terminal movement control team will—

(1) Have commitment authority of transport means (Army air or motor transport) allocated for local shipment from the air terminal.

(2) Designate inbound cargo which must go into the Army's in-transit area because of non-availability of Army transport means to receive the cargo from the Air Force, because cargo has been frustrated in shipment, and because cargo must receive break-bulk handling for forward movement.

(3) Coordinate with line haul transport modes for timely arrival of transportation in the air terminal or the in-transit area.

Section IV. HIGHWAY REGULATION

4-13. General

a. Highway regulation is planning, routing, and scheduling the actual use of highways by vehicles, personnel afoot (including troops, refugees, and civilians), and animals to utilize highway transportation facilities and equipment most effectively, in order to meet operational requirements. The commander accomplishes highway regulation through the highway traffic headquarters and its subordinate highway regulating point teams in the field. These units are described in preceding chapters. The extent of regulation exercised by a traffic headquarters depends on the amount of movement expected and the capacity of the road network. Types of movements normal-

ly scheduled by traffic headquarters include convoys, oversize or overweight vehicles, vehicles moving by infiltration, and troop movement on foot.

b. The automatic data processing capabilities of computers at the theater army support command (TASCOM) movement control center (MCC) and centralized computer centers at the field army support command (FASCOM) and the support brigades are employed in the following areas of highway regulation:

(1) Collation of general route information and traffic information.

(2) Operational planning information, in-

cluding preparation of march tables and critical point graphs.

(3) Provision of highway regulation situation data.

4-14. Terminology

The following terms are frequently used in highway regulation. Certain designated terms have been specifically defined in North Atlantic Treaty Organization (NATO) standardization agreements (STANAG's) and in AR 310-25.

a. Control Point. A position along a route at which men are stationed to give and receive information and instruction for the regulation of traffic (AR 310-25).

b. Open Route. A route for the use of which no movement credit (*g* below) is required (STANAG 2151).

c. Controlled Route. A route the use of which is subject to traffic or movement restrictions (STANAG 2151).

(1) *Supervised route.* A roadway over which control is exercised by a traffic control authority by means of traffic control posts, traffic patrols, or both. A movement credit is required for its use by a column of 10 or more vehicles or by any vehicle of exceptional size or weight.

(2) *Reserved route.* A controlled route, the use of which is allocated exclusively to a particular authority or formation or which is intended to meet a particular requirement; for example, a route reserved for evacuation.

(3) *Dispatch route.* A roadway over which full control, both as to priorities of use and regulation of movement of traffic in time and space, is exercised. A movement credit is required for its use by an independent vehicle or group of vehicles, regardless of number or type.

d. Critical Point. Any point along a route where interference with a movement may occur (AR 310-25).

e. Military Road Network. Includes all routes designated in peacetime by the host nations to meet anticipated military movements and transport movements, both allied and national (STANAG 2151).

f. Military Road Maneuver Network. The road system required by a commander for conducting a specific operation and for the required logistical support of that operation (STANAG 2151).

g. Movement Credit. The time allowed to one or more vehicles to move over a supervised, dispatch, or reserved route (STANAG 2154).

h. Movement Number. A number allocated at the same time as the movement credit by the authority organizing the movement. This number will identify the column during the whole of the movement (STANAG 2154).

i. Traffic Control. Direction of traffic to meet military requirements through-on-the-spot guidance, analysis, information, investigation, studies, and enforcement.

j. Traffic Circulation Map. A map showing traffic routes and the measures for traffic regulation. It indicates the roads for use of certain classes of traffic, the location of traffic control stations, and the directions in which traffic may move.

4-15. Organization of Highway Traffic Headquarters

a. All matters pertaining to highway traffic regulation are centralized in the highway traffic headquarters, an element of the command's movement control unit, under control of the assistant chief of staff, movements.

b. The traffic headquarters depends upon information, recommendations, and services from other agencies. The overall plan for highway regulation is formulated by the traffic headquarters and coordinated with other staff agencies as shown in figure 4-3.

4-16. Functions of Highway Traffic Headquarters

The functions required of a traffic headquarters may vary among commands. They generally include but are not limited to the following:

a. Maintaining a situation map of the military road maneuver network (or military road network, as appropriate) showing current data on obstructions, detours, defiles, capacities, and surface conditions.

b. Implementing established priorities for highway movement in accordance with the commander's instructions.

c. Receiving requests (proposed itineraries) for highway routing and for schedules of movements from units within its area of jurisdiction.

d. Consolidating itineraries and road movement tables (STANAG 2041), scheduling high-

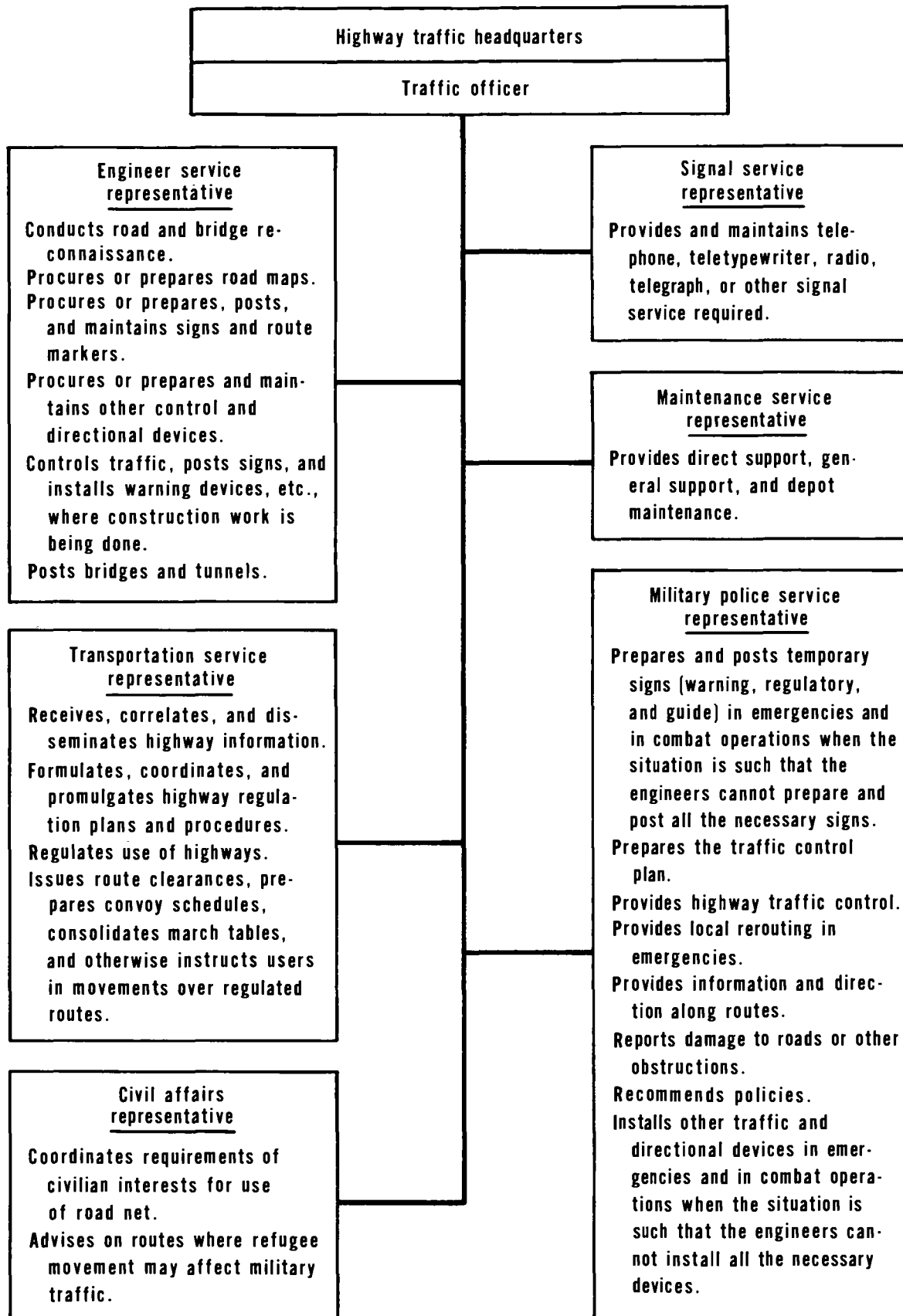


Figure 4-3. Coordination actions within a traffic headquarters.

way movements, and issuing movement credits as necessary.

e. Establishing and issuing traffic circulation maps.

f. Making changes in routings, schedules, and priorities as dictated by the situation and informing unit or convoy commanders of the action (through command channels when possible, otherwise through highway regulating points or traffic control posts).

g. Receiving, recording, and disseminating (as required) information from other traffic headquarters on highway movements into its area of jurisdiction.

h. Coordinating movements terminating outside its area of jurisdiction with other traffic headquarters.

i. In coordination with the engineer construction activity, developing long range and short range transportation planning information for repair priorities of the road network.

j. Establishing procedures for reporting road construction to the engineer construction activity.

4-17. Detailed Highway Regulation Information

Detailed information on highway regulation planning, routing, scheduling, and procedures is contained in FM 55-10.



CHAPTER 5

MOTOR TRANSPORT SERVICE

5-1. Characteristics

a. The chief characteristics of the motor transport mode are flexibility, areawide availability, and a capacity for transporting personnel and cargo from origin to destination without intermediate transfer to other modes. In addition to its normal tasks in line and local haul operations, the motor transport service is of particular value to an integrated transportation system as a connecting link between the other modes and the receivers.

b. The theater motor transport service is functionally organized. Each organization consists of a headquarters element which includes personnel who control or assist in controlling operations and who provide administrative, supply, and service support; a maintenance element to supervise or provide organizational maintenance support; and appropriate task units which provide vehicles to meet operational mission requirements.

c. Vehicles authorized for motor transport task units vary in type, design, and capabilities according to unit employment and anticipated operational environment. Although tracked vehicles may be authorized under certain conditions, transportation truck units are normally equipped with wheeled vehicles. The task equipment and mix of vehicle types are determined by the mission operational environment and the tactical situation. A detailed explanation of these factors and their effects on motor transport planning, as well as a complete description of theater-wide motor transport operations, is contained in FM 55-30. Normally, high mobility vehicles (GOER and M656 5-ton truck) are only authorized to transportation units on a one-for-one substitution basis when such vehicles are required because of terrain conditions. The types of vehicles authorized for task units of the motor transport service are briefly described below:

(1) *Cargo truck, 2 1/2-ton.* The 2 1/2-ton cargo truck is a standard military transport vehicle designed to carry cargo, personnel, or equipment. It is normally employed in local hauls

for support of interrelated activities and for distribution of supplies to using units. It is also suitable for long or line hauls when highways are poor or when offroad operation may be required. It has a highway capacity of 5 tons, but its offroad loads should not exceed 2 1/2 tons. It has seating space in the cargo bed for 20 combat-equipped troops and is equipped to tow a 1 1/2-ton trailer.

(2) *Cargo truck, 5-ton.* The 5-ton truck is similar in size, design, and purpose to the 2 1/2-ton truck, but is slightly larger and built of sturdier components throughout to carry heavier loads and high-density cargo. It is organic to artillery and armored units for transporting ammunition and is assigned to transportation light truck companies primarily to meet ammunition and high density cargo transport requirements. It has a 10-ton highway capacity but is limited to 5 tons for offroad movement.

(3) *Semitrailer, stake, 12-ton.* The 12-ton, four-wheel, cargo semitrailer is designed to be towed by the 5-ton truck tractor or a similar vehicle equipped with a fifth wheel. Highway speeds and offroad capabilities are therefore almost completely dependent upon the power and traction of the tractor. The semitrailer is designed to be towed over hard-surfaced roads at speeds of 50 miles per hour with loads up to 18 tons. It can be towed over unimproved roads and trails or over open, rolling terrain at speeds of 30 miles per hour with loads up to 12 tons.

(4) *Semitrailer, tank transporter, 50-ton.* The 50-ton tank transporter is designed primarily for on-road transportation of the main battle tank and other heavy, outsize, or tracked combat vehicles. It may also be used to transport heavy engineer equipment and bulky, overweight, or outsize cargo. The semitrailer is designed to be towed by the 10-ton M123 truck tractor over improved roads. Offroad operation is not recommended.

(5) *Gasoline tank semitrailer, 5,000-gallon.* The 5,000-gallon gasoline tank semitrailer is de-

signed to transport bulk fuel. Like the cargo semitrailer, it is towed by the 5-ton truck tractor and can be towed over improved roads at speeds up to 50 miles per hour while carrying its full rated load. It can be towed at reduced speeds—up to 25 miles per hour—over unimproved roads and trails of good trafficability while carrying 3,000 gallons of bulk fuel. Fuel transported in the tank semitrailer may be delivered to units on a trailer-exchange basis, transferred directly to user tank vehicles, or transferred to supply point tanks. The semitrailer may also be used as a mobile storage facility to augment supply point stocks in emergencies.

(6) *Semitrailer, refrigerator van, 7 1/2-ton.* The refrigerator van is designed for moving perishable cargo or cargo requiring controlled temperatures. It is towed by the 5-ton tractor over improved roads at speeds up to 50 miles per hour with its full rated load and over unimproved roads at speeds up to 23 miles per hour with a cargo load up to 4 1/2 tons.

5-2. Theater Army Support Command Motor Transport Service

a. Under the command and supervision of the transportation command, the motor transport service for the theater army support command (TASCOM) provides for movement of personnel and equipment from points of entry into the theater to the field army or intermediate destinations. It provides backup support for truck elements of the communications zone (COMMZ) area support groups, which furnish motor transport support to meet local, routine, and recurring transport requirements within each group's area of responsibility, and it establishes the interzonal motor transport service.

b. Typical transport operations conducted by the TASCOM motor transport service which may involve either short hauls or evolve into or be conducted in conjunction with an interzonal operation include terminal and beach clearance operations and depot-to-depot or depot-to-unit operations.

5-3. Interzonal Motor Transport Service

a. The interzonal motor transport service is organized to serve the theater as a whole and provides the necessary flexibility, diversity, concentration, and allocation of motor transport for rapid reaction to changes in strategic and tactical situations. The transportation command con-

tributes to economical operation through centralized control, retaining operational control of its operating motor transport units to their most forward point of delivery. The interzonal motor transport operation is normally a line haul movement operated for extended distances over main supply routes.

b. The interzonal service originates in the COMMZ and extends into the army service area and, when feasible, into corps and division areas. Line hauls may assume the proportions of a major logistical task in support of a field army or other large unit and be the assigned mission of a motor transport brigade. These hauls may be operated with such precision that tonnages move at predetermined rates. Transportation economy is achieved through scheduled operations for transporting routine tonnage requirements. Policies for interzonal line hauls are determined by the transportation command, TASCOM.

c. At times, motor transport express operations may be required as part of line hauls. Express operations are expedited movements of high-priority cargo in which established line haul procedures are modified in the interest of a more rapid delivery than regular line haul. Scheduling must be precise and control highly centralized. Express operations may have the specific mission of supporting a field army or other large unit or of moving a specified tonnage or type of supply within a given time period. Express operations are established only when there is a need for expeditious movement of tonnage over considerable distances and when regular line haul operations or other modes of transportation cannot meet the requirement.

5-4. Field Army Support Command Motor Transport Service

Under the command and supervision of the transportation brigade, the field army support command (FASCOM) motor transport service provides line haul support and local movement of cargo and personnel to all users of the motor transport service in the field army area. For movements originating in a corps support brigade area, this service is backup in nature and is provided only when movement requirements exceed the capability of the corps support brigade's organic motor transport organizations. The transportation brigade's motor transport units provide a connecting link between the

TASCOM transportation command and the direct and general support units of the corps.

5-5. Corps Support Service

a. The motor transport service for a corps is under the command and supervision of the corps support brigade. It provides an areawide service in support of the brigade's supply and replacement distribution mission and in support of tactical operations when required. It also provides both line haul motor transport and local delivery of personnel and cargo. The corps support brigade motor transport capability is normally employed within corps and division areas to carry out movement requirements of the brigade. Companies of the motor transport organization are dispersed throughout the brigade area and are located and employed where they can best meet the requirements of the brigade.

b. When a corps support command (COSCOM) is formed to support an independent or separate corps operation, the transportation brigade is required to provide motor transport as well as other transportation support. COSCOM motor transport service is generally the same as the FASCOM service, with the following exceptions:

(1) In a COSCOM, the transportation brigade provides a single transportation system which includes elements of the three area transportation systems (TASCOM, FASCOM, and support brigade) normally found in a land-mass theater.

(2) In a COSCOM, the motor transport service includes provision for port clearance.

5-6. Motor Transport Brigade

The motor transport brigade is the senior motor transport unit in a theater. It is assigned to a transportation command in the COMMZ and normally may be employed when two or more motor transport groups are required. The headquarters and headquarters company, transportation motor transport brigade (TOE 55-11), commands, plans, supervises, coordinates, and controls the activities of up to seven motor transport groups with assigned and attached units.

5-7. Motor Transport Group

The headquarters and headquarters detachment, transportation motor transport group (TOE 55-12), provides command, staff planning, and control of the operations of up to seven motor

transport battalions. It is normally assigned to the motor transport brigade, but may function directly under a transportation command when the size of the theater is such that a brigade headquarters is not required. A group headquarters may be assigned responsibility for an entire line haul or a segment thereof.

5-8. Motor Transport Battalion

The motor transport battalion is employed to provide centralized command, coordination, and supervision of a number of operating units in support of a single command, installation, or area. The type and number of companies that make up the battalion are varied to suit the operation. The headquarters and headquarters detachment, transportation motor transport battalion (TOE 55-16), provides command and supervision of units engaged in all types of motor transport support such as direct support of tactical units, port or beach clearance, depot and terminal operations, and line hauls. The detachment is capable of commanding, supervising, and providing administrative support for up to seven transportation truck and/or tracked vehicle companies and attached or supporting services.

5-9. Light Truck Company

a. The transportation light truck company (TOE 55-17) may be equipped with 2 1/2- or 5-ton trucks, the choice depending upon the mission and/or the operating area. The unit consists of a company headquarters, a maintenance section, and three truck platoons. Each truck platoon is organized with a platoon headquarters and two truck squads of 10 trucks and ten 1 1/2-ton trailers each, or a company total of 60 task trucks with trailers.

b. In mission operations, the 2 1/2-ton truck-trailer combination has an average cargo-carrying capacity of 4 tons and an average passenger capacity of 20 on short hauls and 16 on line hauls. The average capacity of the 5-ton truck with trailer is 6 tons of cargo or 20 passengers in local hauls and 18 passengers on line hauls. Unit capabilities are computed on the basis of 75-percent vehicle availability, four round trips daily in local hauls, and two round trips daily in line hauls. For planning purposes, therefore, a light truck company equipped with 2 1/2-ton trucks is capable of delivering 720 tons of cargo or 3,600 passengers per day in local hauls and 360 tons of cargo or 1,440 passengers per day in line hauls. When equipped with 5-ton trucks,

the unit can deliver 1,080 tons of cargo or 3,600 passengers in local hauls and 540 tons of cargo or 1,620 passengers in line hauls.

c. In a theater of operations, light truck companies are employed to fill commitments for movement of troops and for local haul of supplies and ammunition in both the field army area and the COMMZ. In addition, they provide a general hauling service, as required, for terminal clearance, depot operations, and installation administrative support.

5-10. Medium Truck Company

a. Depending upon the mission to be performed, the transportation medium truck company (TOE 55-18) may be equipped with either 12-ton cargo semitrailers, 5,000-gallon tank trailers, or 7 1/2-ton refrigerator semitrailers, all with 5-ton tractors as prime movers. Regardless of the type of equipment employed, the unit is organized with a company headquarters, a maintenance section, and three truck platoons. Each truck platoon consists of a platoon headquarters and two truck squads of 10 semitrailers and 10 prime movers each, for a company total of 60 semitrailer combinations. Dependent upon operating conditions, the theater may authorize additional semitrailers (for example, two or three semitrailers per truck tractor) to units to provide more productivity of drivers and utilization of the truck tractors.

b. The unit capabilities listed below are computed on the basis of 75-percent vehicle availability (45 semitrailer combinations), four round trips daily in local hauls, and two round trips (75 miles per round trip) per day in line hauls.

(1) *Cargo semitrailers.* When equipped with 12-ton cargo semitrailers, the medium truck company can transport 2,160 short tons of cargo or 9,000 passengers (emergency only) per day in local hauls and 1,080 tons of cargo or 4,500 passengers daily in line hauls (12 tons or 50 passengers per trip).

(2) *Tank semitrailers.* When equipped with 5,000-gallon tank semitrailers, the medium truck company can transport 900,000 gallons of petroleum per day in local hauls or 450,000 gallons per day in line hauls.

(3) *Refrigerator semitrailers.* When equipped with 7 1/2-ton refrigerator semitrailers, the medium truck company can transport daily 1,080 tons in local hauls or 540 tons in line hauls (6 tons per trip).

c. The cargo medium truck company is employed for economical transportation of bulk dry cargo in line haul operations from initial points of entry into a theater as far forward into the army area as possible. In the army area, medium truck companies operate from army rear to general support and direct support activities in the corps areas as part of the system operated by the transportation brigade. This system is coordinated with the interzonal transportation elements of the COMMZ and complements the motor transport capabilities of support brigades and units of other armywide services.

d. The refrigerator medium truck company is employed wherever required to transport perishable cargo. It may also be used to transport cargo requiring controlled temperatures such as electronic devices, missile components, automatic data processing (ADP) equipment, etc. This employment may involve either local or line hauls.

e. In normal operations the petroleum medium truck company is employed in the line haul transport of bulk fuel from initial points of entry into a theater to points in the COMMZ and army area, based on the overall POL distribution plan for the theater. The materiel command, TASCOM, forwards bulk POL to the farthest points practical in the field army by truck, pipeline, or other means. Medium truck companies make bulk delivery from the tank storage areas to the supply points operated by general and direct support units in the corps areas, to direct support units in the army service area, and to division or separate brigade bases.

5-11. Light-Medium Truck Company

a. The transportation light-medium truck company (TOE 55-67) is essentially a light truck company (2 1/2-ton trucks) augmented by one medium truck squad (5-ton tractor trucks and 12-ton semitrailers). This augmentation provides the company with an organic capability to provide transportation for all classes of supply, except bulk class III, within the army area in combat support and combat service support operations and also the capability of providing service on a semitrailer exchange or relay basis.

b. The company is organized with a company headquarters, a maintenance section, and three truck platoons—two light truck platoons of two light truck squads each and one light-medium platoon with two light truck squads and one medium truck squad. The light-medium truck

company employs a total of 70 task prime mover vehicles—sixty 2 1/2-ton trucks with sixty 1 1/2-ton trailers (10 each per light truck squad) and ten 5-ton truck tractors with twenty 12-ton semitrailers in the medium truck squad. The two-to-one ratio of semitrailers to tractors provides both trailer relay capability and limited mobile storage.

c. The light-medium truck company has a total delivery capability of a light truck company equipped with 2 1/2-ton trucks, plus the additional lift capacity provided by the semitrailer combinations. In local hauls, the unit can transport daily 1,104 short tons of cargo or 7,800 passengers (384 tons and 4,200 passengers by the medium truck squad). In line hauls, it can move 552 tons or 2,600 passengers per day (192 tons and 1,160 passengers by the semitrailer combinations).

d. The light-medium company provides a flexible, responsive motor transport unit used primarily to move dry cargo. This requirement is met by the six light truck squads in the company. The incorporation of the medium squad with its tractor-trailer combination vehicles meets the limited requirements for line haul transport in the assigned areas of responsibility. The medium truck squad may also be employed in short hauls for economical transport of larger bulk shipments. Light-medium truck companies in the transportation brigade are employed as utility motor transport in performing the brigade mission and in reinforcing the support brigade's transport capability as required.

5-12. Heavy Truck Company

a. The transportation heavy truck company (TOE 55-28) is organized and equipped to provide highway transportation of overweight and outsize loads—primarily the main battle tank and other heavy combat vehicles. The task equipment of the company consists of eight-wheel, 50-ton tank transporter semitrailers towed by 10-ton truck tractors.

b. The company is organized with a company headquarters, a maintenance section, and three truck platoons, each having a platoon headquarters and two truck squads of four semitrailer truck tractor combinations each.

c. With 75-percent vehicle availability and an average load of 40 short tons per vehicle, the unit is capable of delivering 2,880 tons of cargo per day in local hauls (four round trips) or 1,440 tons daily in line hauls (two round trips). Be-

cause of their size, the unit task vehicles are limited to improved-road operation. Extreme curves and grades, as well as unusually narrow road widths, may further restrict unit employment.

d. The heavy truck company is normally employed to transport heavy equipment from general support to direct support organizations in the corps areas and to divisions of the corps, but may also operate in the COMMZ. The unit is also used in evacuating disabled heavy equipment to the rear.

5-13. Car Company

a. Although the transportation car company (TOE 55-19) provides for only two basic organizational structures—a support command company and an airborne corps company—the unit may in fact be organized and equipped to operate with any mix (not exceeding 60 total vehicles) of five-passenger commercial sedans, 1/4-ton trucks, or 3/4-ton trucks in squad increments to meet a variety of mission requirements.

(1) The support command car company is organized with a company headquarters, a maintenance section, and three operating platoons—a sedan platoon, a 1/4-ton truck platoon, and a 3/4-ton truck platoon. Each platoon consists of a platoon headquarters and two squads of 10 task vehicles each. The 1/4-ton truck squads are also equipped with five 1/4-ton trailers each.

(2) The airborne corps car company has the same basic organization, except for the makeup of the three operating platoons. In this configuration, the car company has a parachute platoon with two squads of ten 1/4-ton trucks and trailers, an airborne composite platoon with one squad of ten 1/4-ton trucks and trailers and one squad of ten 3/4-ton trucks, and an airborne truck platoon with two squads of ten 3/4-ton trucks.

b. With a 75-percent vehicle availability and each vehicle carrying its rated capacity, the car company platoons have the following capabilities:

(1) Sedan platoon: 75 personnel in one lift.

(2) One-fourth-ton truck platoon: 45 personnel and 2 1/2 tons of baggage or 6 1/4 tons of small-size supplies and cargo in one lift.

(3) Three-fourths-ton truck platoon: 120 personnel or 11 1/4 tons of cargo in one lift.

(4) Airborne composite platoon: 82 person-

nel and 7 1/2 tons of baggage or 10 tons of small-size supplies and cargo in one lift.

c. The car company is employed to transport personnel and light cargo in both the COMMZ and the field army area. In the COMMZ, the unit may be attached to the transportation command or to an area support command. When employed in the field army area, car companies are attached to the transportation brigade and the corps support brigade. In a corps support command of an independent corps, the company is attached to a motor transport battalion. In support of airborne operations, the company is attached to an airborne corps. In this instance, the parachute platoon is normally employed with the drop elements and landed by parachute; the other two platoons are moved to the airhead and air-landed with the followup elements.

5-14. Transportation Tracked Cargo Carrier Company

a. The transportation tracked cargo carrier company (TOE 55-27) is organized and equipped to provide transportation for supply distribution in regions where wheeled vehicles cannot operate effectively. The task equipment of the company consists of forty-eight 6-ton tracked cargo carriers.

b. The company is organized with a company headquarters, a maintenance section, and three cargo carrier platoons with two cargo carrier squads each. Each squad has eight task vehicles.

c. With all vehicles available, the unit can transport in one lift 288 short tons of cargo. In sustained operations with 75 percent of the task vehicles available, the unit can transport 216 short tons of cargo. When the unit is equipped with tank units, it can transport 43,200 gallons of fuel 50 miles forward per day.

d. The tracked cargo carrier company is employed in geographical areas which do not permit use of wheeled vehicles such as in the arctic. The unit may be attached to a division or may operate directly under the corps support brigade motor transport battalion or the FASCOM transportation brigade.

5-15. Divisional Units

In addition to the organizations described above, three other types of motor transport units are organic to the supply and transport battalions of the infantry, armored, and mechanized divisions.

These units are designed specifically to provide transportation for unit distribution of all supplies except class V, to transport division reserve supplies, to furnish vehicles to displace division headquarters and the division administrative company, and to supplement other transport means available to the division.

a. The transportation motor transport company, supply and transport battalion, infantry division (mechanized) (TOE 55-84), is organized with a company headquarters, three light truck platoons, a POL/medium truck platoon, and a maintenance section. Each of the three light truck platoons is equipped with twenty 2 1/2-ton trucks and twenty 1 1/2-ton trailers, which are employed in two cargo squads. The POL/medium truck platoon is made up of two POL/medium truck squads with ten 5,000-gallon tankers and ten 5-ton tractors each, a cargo medium truck squad with twenty 12-ton semitrailers and ten 5-ton tractors, and a POL/light-medium truck squad with five 5,000-gallon tankers and five 5-ton tractors, eight 2 1/2-ton trucks with tank and pump units, and eight 1 1/2-ton trailers with tank units. The unit has a daily shuttle capacity of 360 tons of cargo and 104,550 gallons of POL and a single lift capability of 270 tons of cargo and 104,550 gallons of POL.

b. The transportation motor transport company, supply and transport battalion, armored division (TOE 55-87), is organized with a company headquarters, three light truck platoons, a composite truck platoon, and a maintenance section. The organization and equipment of the three light truck platoons is identical to that described above for the mechanized division company. The composite truck platoon contains three POL/medium truck squads equipped with ten 5,000-gallon tankers and ten 5-ton tractors each, and one cargo medium truck squad with twenty 12-ton semitrailers and ten 5-ton tractors. This unit has the same cargo-carrying capacity as its mechanized division counterpart and can deliver 119,550 gallons of POL daily in shuttle or single lift.

c. The transportation motor transport company, supply and transport battalion, infantry division (TOE 55-88), has a company headquarters, three light truck platoons, a POL platoon, and a maintenance section. Again, the light truck platoons are identical with those described above. The POL platoon is made up of two POL/medium truck squads with nine 5,000-gallon tankers and nine 5-ton tractors each, a cargo medium truck

squad with twenty 12-ton semitrailers and ten 5-ton tractors, and a POL/light truck squad with five 2 1/2-ton trucks equipped with tank and pump units and five 1 1/2-ton trailers with tank units. The cargo capacity of the infantry division motor transport company is the same as its companion units, but it can move only 74,250 gallons of POL daily in shuttle or single lift.

5-16. Cellular Units

TOE 55-540 contains a variety of teams that lend flexibility to the theater motor transport service. These teams are employed when requirements exceed the capabilities of operating motor transport units but are insufficient to warrant the use of additional complete TOE organizations. These teams are normally attached individually to a motor transport company, battalion, or group

but may be employed separately under the supervision of an appropriate staff movements officer. A listing of these units is given below. A detailed description of the mission and capabilities and the equipment and personnel authorized for each is provided in TOE 55-540.

- a.* Team GA, car squad.
- b.* Team GB, bus squad.
- c.* Team GC, heavy truck squad.
- d.* Team GD, light truck squad.
- e.* Team GE, medium truck squad.
- f.* Team GF, trailer transfer point operations team.
- g.* Team GG, highway regulating point team.



CHAPTER 6

RAIL TRANSPORT SERVICE

6-1. Characteristics

a. Rail transport is characterized by its ability to move large tonnages of cargo and large numbers of personnel over long distances. Of all the modes, rail transport is least affected by adverse weather but it is less flexible than other means because it must operate on a fixed roadbed.

b. The transportation railway service in a theater of operations is the overall organization of railway units assigned or attached to the senior transportation organization in the theater—normally the theater army support command (TASCOM) transportation command. It is composed of railway supervisory, operating, and maintenance units as required to operate trains, to maintain rail lines of communication, and to perform organizational and direct support maintenance of locomotives and rolling stock. Transportation railway service supervisory units are so constituted that, depending upon the extent of the operation, any one of them may perform the staff and planning functions of, and serve as, the highest echelon of the military railway service in a theater. The railway service is normally an intersectional service and may operate throughout the theater. A detailed description of theater railway operations is contained in FM 55-20.

c. The transportation railway service is provided by the following units:

(1) Headquarters and headquarters company, transportation railway brigade (TOE 55-201).

(2) Headquarters and headquarters company, transportation railway group (TOE 55-202).

(3) Headquarters and headquarters company, transportation railway battalion (TOE 55-226).

(4) Transportation train operating company (TOE 55-229).

(5) Transportation railway engineering company (TOE 55-227).

(6) Transportation railway equipment maintenance company (TOE 55-228).

(7) Transportation electric power transmissions company (TOE 55-217).

(8) Transportation railway service teams (TOE 55-520).

d. Command and operational control over the entire transportation railway service is exercised by the transportation command, regardless of the extension of this service through other commands or territorial jurisdictions in the communications or combat zones. Commanders of area support commands or areas within the combat zone influence rail operations by coordination through command and technical channels as required.

e. The units constituting the transportation railway service operate the main railroad systems in a theater of operations. Included in each system are the main line and the yards, sidings, and spur tracks required to connect the various installations to that line. Normally, two railway groups are assigned to and operate under the TASCOT transportation command. However, when the rail net must be expanded to meet the support requirements of a larger force, the headquarters and headquarters company, transportation railway brigade, will be interposed in the organizational structure between the groups and the transportation command as the command unit for the theater railway service.

f. The operation of military railways in a theater may be accomplished in three phases—

(1) *Phase I operation.* Phase I operation is conducted exclusively by military personnel and is normally employed during the early stages of theater development when the use of civilian rail personnel is not practical in or near the combat zone of a theater where restrictions on the employment of civilians and the press of military necessity and security require that railway operations be performed by railway troops under a unified command.

(2) *Phase II operation.* During this phase,

railway lines are operated and maintained by military railway personnel augmented with local civilians under direct military supervision.

(3) *Phase III operation.* In this phase, local civilian railway personnel operate and maintain railway lines under the direction and supervision of the highest railway echelon in the theater. In order to provide for the early release of military personnel, phase III operations are instituted as soon as practicable in the rear areas of a stable and secure communications zone (COMMZ).

g. Although these phases normally progress in sequence, inauguration of phase II or phase III operations without progression through the preceding phase(s) is not necessary. Similarly, a regression of phases may be made to meet changes in the military situation. The ultimate aim is to reduce requirements for military personnel and units to operate the existing railways. Since phase III operation fulfills this aim and provides for the most economical employment of military units and personnel, it is the most desirable phase and every effort is made to institute this type of operation as quickly as possible. Coordination between the military railway service and the host country railway operators is provided by civil affairs organizations with direct liaison and coordination between the two railway agencies.

6-2. Railway Brigade

As the senior railway unit in the theater, the transportation railway brigade commands and controls the entire military railway system. Assigned to the TASCOT and attached to the transportation command, the brigade is capable of supervising the operations of up to seven railway groups. When an interzonal service is required, the brigade may operate in both the COMMZ and the army area.

6-3. Railway Group

The transportation railway group provides command, staff planning, and control of the operations of up to six railway battalions and attached units. It is normally attached to the railway brigade, but may function directly under a transportation command as the senior theater railway headquarters when the size of the theater is small enough that a brigade is not required. Each group normally administers and supervises the

operation of one main rail route up to 600 miles in length.

6-4. Railway Battalion

a. As the basic operating headquarters of the military railway service, the transportation railway battalion assumes responsibility for the operation of a railway division, normally 90 to 150 track miles. A railway division generally consists of main line and belt line tracks, sidings, passing tracks, terminals, enginehouses, and car repair tracks. Attached units of the railway battalion perform normal roadway maintenance and organizational and direct support maintenance of motive power, rolling stock, and railway signals, communications, and structures.

b. For planning purposes, a battalion is capable of operating an average of 10 trains daily in each direction over a single main line and 15 trains over a double main line between terminals of the railway division. Personnel of the headquarters and headquarters company are assigned to duties at various locations as required for efficient operation of the railway division and according to the facilities available. Station personnel and towermen are assigned to points along the railroad. The number of personnel at any station depends upon the amount of traffic to be handled. Personnel assignments are flexible to permit relocation of station agents to handle any increase in traffic along any part of the division line.

6-5. Railway Train Operating Company

The transportation railway train operating company provides train crew personnel for operation of main line freight and passenger trains and yard crew personnel for switching requirements in yards and terminals. The unit is organized with a company headquarters, which provides yardmasters and yard clerks, and two train operating platoons of 25 train crews each. At full strength, the train operating company has the following capabilities:

a. Operates trains and locomotives in both yard and road service and performs incidental switching service for a railway division 90 to 150 miles long on an around-the-clock basis.

b. Performs the necessary switching and train buildup in a large terminal, including port clearance up to a 20-mile radius of a large port terminal.

c. Provides 40 train crews daily (20 in each direction) for road and/or terminal operation, including switching, classifying, and making up trains for the road. (Although a full strength unit is authorized a total of 50 crews, its average daily capability is planned on the basis of 40 in order to allow for sickness and periodic rest of personnel.)

6-6. Railway Engineering Company

The transportation railway engineering company performs maintenance and repair on track, bridges, and structures of a railway division on a 24-hour basis. Maintenance and repair include inspection of track, roadbeds, signals, bridges, culverts, buildings, water towers, and other railway structures to determine the extent and nature of repair and maintenance required. When major construction or rehabilitation beyond the capabilities of this unit is required, the senior railway headquarters requests support from the theater engineer command. The unit is organized with a company headquarters, a track maintenance platoon with three maintenance sections, a bridge and structural maintenance platoon with two sections, and a service support platoon.

6-7. Railway Equipment Company

The transportation railway equipment company provides organizational and direct support maintenance for 40 diesel-electric locomotives and 800 railway cars daily. It also performs running inspection on 2,000 cars per day and provides light repairs on tools and limited repairs on special mechanical equipment used in support of a railway division. It is organized with a company headquarters, a car repair platoon, and a diesel-electric locomotive repair platoon. Upon entry into a theater of operations, unit equipment maintenance personnel inspect the available motive power and rolling stock and estimate the time required to place this equipment in service. Equipment requiring repairs beyond the capability of the company is evacuated to general support units (the diesel-electric locomotive repair company and the transportation railway supply and car repair company (general support)). In addition to providing organizational and direct support maintenance to the operating units of the battalion, the railway equipment company also inspects enginehouses, shops, fueling and watering stations, and other facilities used in rolling stock maintenance. Unit personnel operate a wreck train to clear tracks and to repair or salvage

derailed or wrecked motive power and cars. The company maintains the necessary level of fuels and other supplies and repair parts for mission support and operates fueling, watering, and lubrication facilities for the division.

6-8. Electric Power Transmission Company

The transportation electric power transmission company maintains and repairs electric power transmission facilities, including substations and catenary, for 200 miles of electrified railway and associated side tracks, passing tracks, and yard tracks. The unit is employed only when an electrified system is to be operated and when such operation cannot be accomplished by the local civilian railway. The company is organized with a company headquarters and two electric power platoons.

6-9. Railway Service Teams

A variety of railway service teams are authorized by TOE 55-520 to be employed when requirements exceed the capabilities of railway service operating and maintenance units but are not sufficient to warrant the use of additional complete TOE organizations. These teams may be attached individually to operating and maintenance companies or to the railway battalion or may be organized into service units to perform the functions required by existing conditions. These units are listed below. A detailed description of the mission, capabilities, and personnel authorized is provided in TOE 55-520.

- a. Ambulance train maintenance detachment (direct support).
- b. Ambulance train maintenance detachment (augmentation).
- c. Railway station detachment.
- d. Railway terminal detachment.
- e. Railway section crew.
- f. Steam locomotive maintenance detachment (direct support).
- g. Diesel-electric locomotive maintenance detachment (direct support).
- h. Railway car repair crew (direct support).
- i. Railway yard operating detachment.
- j. Bridge and building maintenance detachment (direct support).
- k. Railway train operating section.
- l. Railway workshop (mobile) detachment (direct support).
- m. Railway maintenance-of-way crew.



CHAPTER 7

AIR TRANSPORT SERVICE

7-1. Characteristics

a. The complex transportation requirements of the Army in a theater of operations necessitate that a transportation service be organized to coordinate available transportation modes, to provide proper planning, and to achieve adequate control of operations. Army air transport is an integral part of the transportation service.

b. Because of the mission versatility and responsiveness of Army air transport, considerable reliance is placed on this mode of transportation to provide airlift of personnel and cargo for the Army forces. The extent of Army air transport service established in a particular area of operations is dependent upon the overall transportation requirements for the force involved.

c. Army aircraft are capable of operating in the environment of the ground soldier. These aircraft are rugged in design, are highly maneuverable, are capable of short takeoff and landing (STOL) or vertical takeoff and landing (VTOL), and can be maintained under field conditions. Army fixed wing aircraft can operate from small unimproved fields or airstrips, and helicopters can operate from areas unsuited for fixed wing operations.

d. The basic operational units of the Army air transport service are the assault support helicopter company (TOE 1-258), the heavy helicopter company (TOE 55-259), and the aviation service support company (TOE 1-407). Centralized command and control is provided by a combat aviation battalion headquarters (TOE 1-256). Each battalion is tailored by the attachment of aviation companies required to perform the mission assigned.

e. A brief description of the organizations that provide the Army air transport service is contained in this chapter. Detailed operational concepts and techniques and aircraft characteristics can be found in FM 55-40.

7-2. Combat Aviation Battalion

The headquarters and headquarters company, combat aviation battalion, through attached aviation companies, provides air movement of personnel and cargo as part of a transportation service in a theater of operations. The battalion is normally assigned to a theater army support command, a field army support command, a corps support command, or a support command of an independent force when operating as part of a transportation service. The headquarters and headquarters company is capable of providing the following:

a. Command, staff planning, and supervision of the activities of up to seven air transport companies.

b. Site selection of the general area for subordinate units.

c. Staff supervision and command guidance for maintenance and logistic functions of attached Army units.

d. Planning and supervision of the battalion communications system.

e. Necessary communications and terminal facilities for operation of the unit airfield.

7-3. Assault Support Helicopter Company

a. The assault support helicopter company provides air transport of personnel and cargo for combat service support and combat support operations as follows:

(1) Transports troops and/or supplies under day, night, or limited visibility conditions.

(2) Provides aerial mobility and aerial supply and resupply of Army forces.

(3) Provides augmentation of Army medical service aeromedical evacuation elements.

b. The unit is organized with a company headquarters, an operations platoon, a service platoon, and two helicopter platoons of eight Chinook (CH-47A, B, or C model) helicopters each. The

Chinook has a passenger capacity of 33, a litter capacity of 24, and a cargo capacity that varies with the model number and the distance traveled as indicated below.

Model	100-nautical mile radius (pounds) ¹	20-nautical mile radius (pounds) ¹
A -----	8,550	10,550
B -----	14,100	16,100
C -----	17,200	20,200

c. Airlift missions performed by the assault support helicopter company will normally be performed within a radius of approximately 100 nautical miles and will usually be in areas where there are no fixed wing landing strips. The unit can be employed in day or night operations and during periods of inclement weather. However, the effectiveness of the company is reduced during darkness and extremes of inclement conditions.

7-4. Heavy Helicopter Company

The heavy helicopter company provides airlift of heavy or outsize loads of cargo and supplementary airlift of personnel for combat service support and combat support operations. The company is organized with a company headquarters, a flight operations platoon, a maintenance platoon, and three heavy helicopter platoons of three CH-54A or B model Sky Crane helicopters each. These aircraft have a cargo capacity of from 19,520 pounds (25-nautical-mile radius) to 20,680 pounds and 25,000 pounds, respectively (10-nautical-mile radius). The unit can transport personnel or heavy, outsize cargo loads during day, night, or limited visibility conditions and can be employed in a supplemental lighterage role, discharging cargo/container ships lying offshore and delivering the cargo over the beach to inland destinations within its operating radius.

7-5. Aviation Service Support Company

a. The aviation service support company provides administrative service airlift within a field army or a communications zone, including rapid

air transport of commanders and staffs, air movement of small groups of personnel and high priority cargo items, aircraft support for aerial radiological surveys, observation and reconnaissance in support of rear area protection operations, and airlift for command, control, liaison, and courier service. The company is organized with a company headquarters, a flight operations platoon, a maintenance platoon, a fixed wing platoon, and a rotary wing platoon. The rotary wing platoon has an observation helicopter section with five observation helicopters (OH-6 or OH-58) and a utility helicopter section with ten utility tactical helicopters (UH-1D or UH-1H). The fixed wing platoon has ten utility type aircraft (U-8F or U-21).

b. The aviation service support company establishes and operates a base airfield with necessary communications and air traffic control facilities for visual and instrument flight operations, provides rapid air transport of personnel and high priority items during day and night operations and in periods of inclement weather, and furnishes local motor transport taxi service for general officers, senior commanders, and other personnel using the unit's aviation services. For flying hour details, see TOE 1-407 and FM 55-40. Determination of the specific type of aircraft to be employed for a particular mission depends upon such factors as maneuverability of aircraft, distance to be flown, time available, weather, available landing facilities, number of passengers involved, and the weight of the cargo to be moved. Generally, the fixed wing utility aircraft will be used to transport groups of personnel and high priority items over extended distances and where landing facilities suitable for this type of aircraft are available. These aircraft will also be used as a prime source of air transport for general officers and key staff personnel. The utility helicopters will provide essentially the same service except that flights will normally be over shorter distances.

¹ At sea level under standard day conditions.

CHAPTER 8

WATER TRANSPORT SERVICE

8-1. Characteristics

The transportation watercraft service (FM 55-50*) provides water transport and floating utility service in harbor areas, on inland waterways, and along coastlines and provides ship-to-shore light-erage service in beach operations. The fleet consists of three basic types of floating equipment—landing craft, amphibians, and harbor craft.

a. Landing craft are designed primarily to transport wheeled and tracked vehicles in logistics over-the-shore (LOTS) operations and amphibious operations but may be employed in a utility role in harbor areas and inland waterways and for transport of general cargo and troops. They are capable of beaching, loading and unloading vehicles through their bow ramps, and retracting under their own power. The Army currently employs three types of landing craft—

(1) The LCM-8 (landing craft, mechanized, Mark VIII), a 73-foot, steel-hulled, diesel-powered craft with a 60-ton carrying capacity.

(2) The LCU (landing craft, utility, Navy design 1466), a 115-foot, steel-hulled, diesel-powered craft with a carrying capacity of 150 tons. The Army is adopting a similar craft as standard A; design 1640 is a 135-foot, steel-hulled, diesel-powered 170-ton capacity craft and has a drive-through capability.

(3) The BDL (beach discharge lighter), a 338-foot craft designed for water transportation of roll-on/roll-off cargo from ocean roll-on/roll-off ships to undeveloped beaches. The BDL has a 600-ton beaching capacity, a 2,000-ton maximum capacity, and a cruising range of 4,800 nautical miles. It is diesel powered and is driven by twin vertical-axis propellers.

b. Amphibians are wheeled floating craft designed to transport cargo from ships lying off-shore to discharge areas beyond the beach in LOTS operations. There are three types of craft in this category—

(1) The LARC-V (lighter, amphibious, re-supply, cargo), a 35-foot, aluminum-hulled, diesel-powered amphibian with a 5-ton carrying capacity. This craft is designed to carry general cargo, which may be loaded into and unloaded from the lighter by cranes, ship's gear, conveyor belts, A-frames, wreckers, or forklift trucks.

(2) The LARC-XV, a 45-foot, aluminum-hulled, diesel-powered amphibian with a 15-ton carrying capacity. It may be loaded or unloaded by the same means as the LARC-V, and small vehicles may be driven into or out of the cargo well through a bow ramp.

(3) The LARC-LX, a 62-foot, steel-hulled, diesel-powered amphibian with a normal carrying capacity of 60 tons and an emergency capacity of 100 tons. This craft is a specialized piece of floating equipment designed to transport vehicles and other heavy, outsize cargo between ship and shore. Cargo may be loaded into and unloaded from the LARC-LX by conventional means, and vehicles may be driven into and out of the cargo well through its bow ramp.

c. The harbor craft fleet includes numerous varieties of nonbeaching vessels which are employed in harbor areas, on inland waterways, along coastlines, and as interisland carriers. This group consists of the following basic types:

(1) *Harbor tugs.* Harbor tugs berth and unberth large ships and move barges in harbors and along inland waterways. Tugs in the current inventory range in size from 45 to 143 feet.

(2) *Passenger and cargo boats.* These vessels move limited amounts of cargo and small groups of personnel between ship and shore or between shore points in harbor areas and on inland waterways. They are self-propelled and are capable of only moderate speeds. The standard passenger and cargo boat is slightly over 65 feet long, can carry 24 passengers, and has a single, 25-ton-capacity cargo hold.

(3) *Picket boats.* Picket boats are used for command and inspection and for routine patrol

*To be published.

missions in harbors and on inland waterways. Two standard picket boats are currently employed—a 46-footer and a 65-footer.

(4) *Barges.* The transportation barge fleet consists of repair barges and dry, liquid, and refrigerated cargo types. All except dry cargo barges have installed machinery to perform the specialized mission for which they are designed. Barges range in size from 80 to 120 feet and may be used as breasting barges, work boats, cargo lighters, or floating dumps. Conversion kits for deck barge designs provide covering for cargo protection.

(5) *Self-evaluating pier barges.* These non-propelled craft contain jacks, caissons, and machinery for elevating themselves above the water to form working platforms. These barges come in two lengths—150 and 300 feet—and may be employed as single piers butted against a beach or as finger, marginal, T-head, or L-head piers at which ships may be moored alongside for discharge.

(6) *Floating cranes.* Floating cranes are nonpropelled barges used in loading and unloading heavy lifts that are beyond the capacity of ship's cargo handling gear. The Army currently employs 60- and 89-long-ton capacity floating cranes, both of which may also be used in salvage, dredging, and pile-driving operations.

(7) *Cargo vessels.* These self-propelled craft transport dry and liquid cargo along coastlines, on inland waterways, and on short ocean passages. They are equipped with machinery and cargo gear to handle the cargo they are designed to carry. These craft range in size from 175 feet to a standard 220-foot design.

d. The transportation watercraft fleet is employed in the following organizations:

(1) Transportation medium boat company (TOE 55-128).

(2) Transportation heavy boat company (TOE 55-129).

(3) Transportation light amphibian company (TOE 55-138).

(4) Transportation medium amphibian company (TOE 55-139).

(5) Transportation heavy amphibian platoon (TOE 55-530, Team FN).

(6) Transportation watercraft teams (TOE 55-530).

8-2. Command and Control

The water transport units discussed in this chapter are normally attached to the terminal battalion or group headquarters discussed in chapter 9. Detailed discussion of water transport unit operations is presented in FM 55-60.

8-3. Medium Boat Company

The medium boat company is equipped with a total of 19 LCM-8's and has the mission of transporting vehicles and heavy lifts between ship and shore or from shore to shore in LOTS operations or in support of amphibious operations. The unit is normally assigned to a theater army support command (TASCOM) and attached to a terminal battalion or terminal group for operational control. It may also be attached to a shore party organization to provide combat service support in an amphibious operation. With 12 of its 16 task LCM-8's available, it is capable of transporting an average of 720 short tons of cargo per 20-hour day in normal around-the-clock ship-to-shore operations, or 960 short tons in a one-time maximum lift. The company is organized with a company headquarters, a supply and maintenance platoon, and two boat platoons having two boat sections each. Two LCM's are assigned to company headquarters for command and control and one is assigned to the maintenance and salvage section.

8-4. Heavy Boat Company

The heavy boat company is equipped with 12 LCU's and has the mission of transporting vehicles, heavy cargo, and personnel in navigable rivers, harbors, inland or coastal waters, and the open sea in LOTS operations or in support of amphibious operations. The unit is normally assigned to a TASCOM and attached to a terminal battalion or terminal group for operational control. It is capable of transporting 2,160 short tons of vehicles, 1,440 short tons of general cargo, or 16,000 troops per day in normal lighterage operations. In a one-time maximum lift with all task craft employed, the unit can move 1,800 tons of cargo or 4,800 troops. The unit's LCU's are employed in two six-boat platoons. There is one picket boat assigned to company headquarters for command and control.

8-5. Light Amphibian Company

The light amphibian company is equipped with 35 LARC-V's and has the mission of providing

lighterage for the movement of general cargo between the ship and shore or from shore to shore in LOTS operations. This unit is normally assigned to a TASCOT and attached to a terminal battalion or terminal group for operational control. It may also be attached to a shore party organization to provide combat service support in an amphibious operation. A full-strength light amphibian company is capable of transporting approximately 1,000 tons of general cargo per day in around-the-clock operations. This is based upon 75-percent availability of the unit's 34 task amphibians. However, productivity of the light amphibian company is directly related to the discharge rates of the terminal service company working the ship, and the amount of cargo delivered ashore will vary significantly as the hatch rates change. The company is organized with a company headquarters, a maintenance section, and two amphibian platoons of two sections each. Each platoon is equipped with 17 LARC-V's—eight in each section and one in platoon headquarters. Another LARC-V is assigned to the maintenance section to provide contact maintenance and recovery service.

8-6. Medium Amphibian Company

The medium amphibian company is equipped with 25 LARC-XV's and has the same mission, assignment, capability, and organization as the light amphibian company. Twenty-four of its task amphibians are distributed in four six-craft sections (two per platoon), and the twenty-fifth is assigned to the maintenance section as a contact maintenance and recovery vehicle.

8-7. Heavy Amphibian Platoon

The heavy amphibian platoon is equipped with four LARC-LX's and has the mission of providing lighterage for the movement of vehicles and heavy equipment between ship and shore and from shore to shore in LOTS operations. The platoon is normally assigned to a TASCOT and attached to a terminal battalion, a terminal group,

or a light or medium amphibian company for operational control. Depending on discharge rates, weather, and sea conditions, a full-strength heavy amphibian platoon is capable of transporting approximately 450 short tons of vehicles and heavy equipment per day in around-the-clock operations. Although not designed to carry general cargo, the platoon's capability when so employed is approximately 225 short tons per day. In a maximum one-time lift, the four LARC-LX's can transport a total of 500 combat-equipped troops.

8-8. Watercraft Teams

In addition to the heavy amphibian platoon, TOE 55-530 also provides single-craft crews for the BDL and each type of watercraft in the current inventory. These teams, which are listed below, are normally attached to a terminal battalion singly or in combination as harbor craft companies or detachments in accordance with the missions to be performed.

- a. Team FA, deck cargo barge, nonpropelled.
- b. Team FB, picket boat, 46-foot.
- c. Team FC, deck or liquid cargo barge, 120-foot, nonpropelled.
- d. Team FD, harbor tug, 45-foot.
- e. Team FE, passenger and cargo or picket boat, 65-foot.
- f. Team FF, refrigerator barge, nonpropelled.
- g. Team FG, harbor tug, 65-foot.
- h. Team FH, barge crane, 68-ton.
- i. Team FI, barge crane, 100-ton.
- j. Team FJ, harbor tug, 100-foot.
- k. Team FK, oceangoing tub, 126-foot.
- l. Team FL, liquid or dry, 213-foot, self-propelled.
- m. Team FM, beach discharge lighter.



CHAPTER 9

TERMINAL SERVICES

9-1. Introduction

a. The overall effectiveness of a transportation system depends to a significant degree on the efficiency of the terminal facilities that support it. As connecting links in the transport net, terminals are natural bottlenecks. Slowdowns or interruptions in the terminal transshipment operation cause congestion that, if allowed to continue, can paralyze the transportation service and bring about a collapse of the entire theater logistics system.

b. Essentially, a terminal is any facility, regardless of size or complexity, at which cargo or personnel are loaded, unloaded, and handled in transit between elements of any of the various modes of transportation. Terminals are established at the beginning and destination points for the cargo being carried and at intermodal transfer points.

c. Army terminals are of two basic types—those situated at the water's edge and those located at various points in the transportation system further inland. Water terminal operations involving transfer of cargo or personnel between ship and shore are conducted at both established port facilities and over beaches. Inland terminal operations are normally performed in support of air, rail, and motor transport nets, but may also be conducted in conjunction with intermediate staging areas supporting airborne operations.

d. The Army transportation system includes headquarters elements specifically designed to provide command and control of operating units which provide terminal services in support of the mode operators described in chapters 5-8.

e. This chapter summarizes Army terminal organizational and operational concepts that are described in detail in FM 55-60.

9-2. Port Terminals

Port terminals are developed shoreside installations varying in size from large deepwater complexes containing several wharves, anchorage

areas, shore-based cranes, drydocking facilities, cargo sheds, sorting and storage areas, rail sidings, etc., to small, shallow-draft, one- or two-wharf facilities with minimum provisions for cargo handling, storage, and clearance. Port terminal operations are usually conducted at existing ocean ports of arrival in a theater, but may also be performed in support of an Army-operated inland waterway system. An inland waterway terminal normally includes facilities for mooring, cargo loading and unloading, dispatch and control, and repair and service of all craft capable of navigating the waterway. Terminals either exist or are established at the origin and terminus of the inland water route, and intermediate terminals are located along the way wherever a change in transportation mode is required.

9-3. Beach Terminals

a. The probability that existing port capacities in many areas will be insufficient to support theater tonnage requirements and the possibility of the use of mass destruction weapons requires that emphasis in planning must frequently be directed to the use of widely scattered beach terminals. Current planning is based on the estimate that upwards of 40 percent of all cargo entering a theater will have to be delivered through dispersed beach terminals, at least during the early stages of theater establishment and frequently for significant periods of time thereafter. Beach terminal operations are conducted in support of or in place of port terminal operations and as part of and in support of amphibious operations.

b. The basic type of beach terminal operation is the logistics over-the-shore (LOTS) operation, which is a transshipment of troops, supplies, and equipment over the beach to inland modes of transportation when conventional port terminal facilities are not available or are insufficient to support theater resupply. LOTS operations may be conducted from ship to shore or from shore to shore and are normally instituted for one or more of the following reasons:

(1) To establish terminal support where port facilities do not exist.

(2) To replace the tonnage capacity of a terminal made untenable by enemy actions.

(3) To supplement or increase tonnage capabilities of an existing terminal.

(4) To relieve congested lines of communication.

(5) To reduce the land transportation required to support combat forces.

(6) To support a landed force following an amphibious operation or a shore-to-shore operation.

c. In addition to providing logistical support to a landed force following an amphibious operation or a shore-to-shore operation, transportation terminal units also perform beach terminal functions during the assault phase of these operations. In both cases, transportation terminal units are attached to the combat unit conducting the operation and actively participate in embarking and debarking the landing force and its equipment. In addition to unloading ships and aircraft in the objective area, they segregate cargo, provide cargo clearance from the beach, establish and operate temporary holding areas, and assist troop units in landing and moving across the beaches.

9-4. Air Terminals

a. Air cargo transfer operations within a theater take place at both Air Force and Army air terminals. The Air Force commander is responsible for providing terminal facilities at all points served by Military Airlift Command or tactical airlift aircraft, including loading and unloading both the aircraft and Army clearance and delivery transportation. However, the Army commander may, by local agreement (AR 59-106), provide personnel to participate in loading and unloading Army transportation at these facilities, and accept responsibility for loading and unloading Air Force aircraft at forward Army landing fields or airstrips that are not regularly scheduled stops for Air Force aircraft. In each of these instances, Army transportation terminal transfer units would be employed. In addition, terminal transfer units may furnish personnel to load and unload Air Force tactical airlift aircraft conducting Army unit moves.

b. The field army support command (FASCOM) establishes and operates Army air terminals in

corps and field army rear areas to support Army air lines of communication (ALOC's). These air terminals and ALOC's must not duplicate existing Air Force facilities or routes. Necessary facilities and services are provided at these terminals to obtain timely and effective air movement of troops and supplies and to facilitate efficient use of available aircraft. The senior Army officer of the transport units operating at these points normally act as terminal commander. Transportation terminal transfer units load and unload aircraft, document cargo moving through the terminal, and operate cargo segregation and temporary holding facilities.

c. When Army aircraft are employed in a local distribution operation, shipping and receiving agencies, rather than transportation terminal elements, are responsible for loading and unloading aircraft.

d. At division level, the division support command is responsible for air terminal operations, establishing one or more air terminals according to the volume of cargo received and distributed by air. Normally, division air terminals are operated by the supply and transportation battalion, but transportation terminal transfer elements may be transported by air to forward airstrips to unload cargo for limited periods of time.

9-5. Motor Transport Terminals

Motor transport terminals are normally located at both ends of a motor transport line haul operation, where they form the connecting link between local hauls and the line haul service. They may also be located at intermediate points along the line haul route where terrain conditions necessitate a change in type of carrier. Transportation terminal transfer elements provide the cargo handling service at motor transport terminals and function under the operational control of the senior motor transport commander. Cargo transfer at forward motor transport terminals in the division area is a responsibility of division support command personnel.

9-6. Rail Terminals

a. Rail terminals may include yard tracks, repair and servicing facilities, accommodations for train crews, and railheads. They are located at originating and terminating points of train operations and at sites which mark the limits of the rail operating divisions. A railhead is a small yard or terminal on or at the forward end of a

military railway where troops, supplies, and equipment are transferred to other modes of transportation for further movement forward.

b. With one exception, the transportation terminal transfer elements performing the transshipment operation at theater rail terminals are under the operational control of the senior railway commander. When functioning at terminating railheads in the field army area, terminal transfer elements are controlled by the FASCOM transport organization responsible for the further forward movement of the cargo.

9-7. Intermediate Staging Areas

An intermediate staging area is a stopover point between the mounting area and the objective area of an airborne force through which the force or parts thereof pass after mounting for refueling and regrouping of aircraft and exercise, inspection, and redistribution of troops and equipment preparatory to the assault. The support required by the assault force in the intermediate staging area is provided primarily by Army elements and includes administrative services, messing, billet areas, logistic support, communications, preparation of loads, loading of aircraft, and combat configuration of the force. The command element for a typical intermediate staging area is the transportation terminal battalion (para 9-8), and other transportation terminal elements are included to provide the transshipment functions incident to the operation.

9-8. Organization for Terminal Operations

The transportation terminal organizations described in this paragraph provide command, control, and planning and the operating means for conducting theater terminal operations. All except the terminal transfer company normally carry out their combat service support functions in the communications zone (COMMZ) as part of the integrated transportation system provided by the transportation command for the theater army support command (TASCOM). In addition to COMMZ employment, the terminal transfer company may function at FASCOM inland terminals operated by the transportation brigade.

a. *Transportation Terminal Brigade.* The transportation terminal brigade headquarters (TOE 55-111) is employed when circumstances prevent adequate supervision and coordination of theater terminal operations by one or two terminal groups (b below). The brigade is not normally

activated unless the size and complexity of terminal operations make it necessary to employ three or more groups, but activation is also largely influenced by the number of other mode group headquarters attached to the transportation command. If the total number of mode groups becomes excessive, it may be desirable or necessary to interpose a terminal brigade when only two groups are operative in order to simplify overall command and control problems for the transportation command. The mission of the terminal brigade is to provide command and supervision of and staff planning for units employed in the operation of water terminals. The brigade is assigned to TASCOM and is normally attached to a transportation command. The terminal brigade is capable of providing command, control, and administration for up to five transportation terminal groups.

b. *Transportation Terminal Group.* The transportation terminal group headquarters (TOE 55-112) is normally responsible for all theater water terminal operations for TASCOM. However, when the size and complexity of the theater create a requirement for the employment of two or more terminal groups and the consequent assignment of a terminal brigade as the theater terminal mission headquarters, the terminal group assumes a subordinate role and is assigned responsibility for terminal operations on an area basis. The mission of the terminal group is to provide command, staff planning, and supervision of units employed in the operation of water terminals. The group is assigned to TASCOM and is normally attached to a transportation terminal brigade or a transportation command. The group is capable of providing command, control, staff planning, coordination, and supervision of operations, training, and administration of up to six transportation terminal battalions.

c. *Transportation Terminal Battalion.* The headquarters and headquarters company, transportation terminal battalion (TOE 55-116), provides the basic operating headquarters for theater terminal operations and is the normal command element for each water terminal. In addition, the terminal battalion headquarters may act as the command element in the operation of intermediate staging areas for airborne units and is the key terminal organization in support of amphibious operations. The terminal battalion, therefore, is necessarily a flexible organization, its components varying according to the particular requirements of each of its diversified missions. Tailoring is accomplished by modifying the num-

ber and types of units attached for each task. The mission of the headquarters and headquarters company, transportation terminal battalion, is to provide command, administration, supervision, and operational control of units employed in the operation of water terminals. The battalion is assigned to TASCOM and is normally attached to a transportation terminal group. It may be attached to a transportation terminal brigade or may operate separately under the supervision of a transportation command. The terminal battalion may also operate under command of a general support group in support of initial phases of contingency operations. When providing combat service support in an amphibious operation, the terminal battalion is normally attached to an engineer amphibious command. The terminal battalion is capable of commanding up to seven transportation terminal and/or water transport units (terminal service, terminal transfer, landing craft, amphibian, harbor craft, or lighterage direct support companies) or the equivalent of a four-ship terminal in an established port facility or a two-ship terminal in a beach operation.

d. Transportation Terminal Service Company. The terminal service company (TOE 55-117) is the basic working unit in theater water terminal operations. It is organized to work a single ship on a two-shift, around-the-clock basis, but may be employed to handle two ships simultaneously in a one-shift, 10-hour day without changing its total daily capability. The terminal service company may operate separately, or its operations may be integrated with those of one or more other terminal service and lighter units supervised by the same battalion. The mission of the terminal service company is to load, unload, and transship cargo in both port and beach terminal operations. In addition, the unit sorts cargo by destination and prepares all required documentation to account for and record the movement of cargo into and out of the terminal. The terminal service company is normally attached to a transportation terminal brigade or terminal group and is further attached to a transportation terminal battalion for operational supervision. When committed in support of amphibious operations, the company is attached to an engineer amphibious brigade, group, or battalion. A full-strength terminal service company can discharge 720 short tons of cargo per day or load 500 short tons per day.

e. Transportation Terminal Transfer Company.

The mission of the terminal transfer company (TOE 55-118) is to transship cargo at Army air, rail, motor, and inland barge terminals. This includes unloading, segregating, cooperating, temporary holding, documenting, and loading cargo whenever a change in carrier occurs. The company is normally employed with each of its three operating platoons assigned to work a separate terminal. The terminal transfer company may be attached to a transportation brigade in the field army area or to a transportation command in the COMMZ. When employed in the field army area, the company is normally attached to a motor transport group or to an aviation group. These attachments are on a mission basis and provide the group with the necessary cargo transfer capability. Operational control of the entire terminal facility is assigned to a battalion or a company of the group having primary transport responsibility. In the COMMZ, the company may be attached to a transportation brigade or group to operate inland terminals or transfer points directly related with the forward movement of cargo entering the theater through water terminals. The company or its elements may also be attached to a terminal battalion to support terminal service company shore platoons in relieving holding area congestion at water terminals by loading backlogged cargo onto clearance transportation. The terminal transfer company is not normally assigned to operate at distribution points, but the company or its elements may be committed in support of supply units performing these functions if cargo backlog or similar conditions indicate a requirement for temporary employment of this type. Inland waterway terminal assignment of this unit is limited to the transfer of cargo between small canal boats and other transportation modes. (Port, beach, and inland ship canal cargo discharge operations are functions of the transportation terminal service company.) A full-strength terminal transfer company is capable of transshipping an average of 900 short tons of cargo daily. This tonnage capability is based on a 20-hour day and takes into account all procedures incident to the movement of cargo. Each operating platoon with its normal complement of personnel and equipment can transfer 300 short tons of cargo per day.

f. Terminal Operating Teams. In addition to the units listed above, TOE 55-560 also contains various teams for terminal operations support, such as cargo handling sections, contract super-

vision teams, and documentation sections. These elements may be attached to the terminal bat-

talion, the terminal service company, or the terminal transfer company.



CHAPTER 10

SUPPORT OF TRANSPORTATION SERVICES

10-1. Introduction

This chapter provides an outline discussion of a variety of support services and functions that are an essential part of or incidental to the operation of a theater transportation system.

10-2. Communications Support

a. Internal communications requirements for individual transportation units are satisfied by communications facilities and personnel organic to each unit. The communications requirement to interconnect headquarters, units, and installations within the theater is satisfied by an area-type communications system. In the communications zone (COMMZ), this system is established, operated, and maintained by signal units of the US Army strategic communications command (theater) and, in the combat zone, by signal units of the field army signal brigade.

b. An area-oriented communications subsystem extends along the lines of communication from the rear of the theater forward and consists of transmission centers, transmission subcenters, trunk switching centers, radio relay and cable trunking systems, and terminal communications centers.

c. Small area communications centers are located in the areas of high troop density. Field wire and field cable circuits connect these area communications centers to headquarters, units, and installations. Multichannel access trunks connect these centers to the long line trunking systems at transmission centers and selected transmission subcenters. The area communications centers provide patching, switching, telephone communications centers, and radio-wire integration, as well as message center, teletypewriter, radio-teletypewriter, facsimile, and messenger service.

10-3. Communications Security

a. Effective transportation services depend in large part on reliable, rapid communications util-

izing many means. The enemy is aware of this dependence on communications, and it should be assumed that he will take those steps necessary to exploit this dependency. Such exploitation can take two forms. On the one hand, he can study the usage patterns, technical characteristics, and message content to derive communications intelligence (COMINT) concerning friendly force composition, structure, capabilities, and intentions. On the other hand, he can use this information to provide the technical data base required for the employment of electronic countermeasures (for example, jamming or deception) against friendly communicators.

b. Units close to the FEBA (forward edge of the battle area) naturally suffer greater exposure to the hazard of enemy interception and exploitation of their communications. However, units in the COMMZ should not assume that distance from enemy ground forces assures immunity from enemy COMINT efforts. Airborne platforms and clandestine wiretap operations are only two ways by which the enemy can extend his COMINT threat to the COMMZ.

c. Action taken by the US Army to counteract enemy COMINT efforts is communications security (COMSEC). Actions taken to counter enemy electronic countermeasures (ECM) are electronic counter-countermeasures (ECCM). COMSEC and ECCM are of vital importance to transportation operations at all levels in order to minimize the amount of intelligence that the enemy can derive through his COMINT activities as well as to minimize the effects of enemy ECM. For this reason, personnel involved with communications, whether as a primary duty or on an occasional basis, must be thoroughly trained and indoctrinated in approved COMSEC and ECCM procedures.

d. The US Army security agency (theater) provides theater army transportation services with COMSEC and ECCM support. FM 32-10 describes the nature and organization of this

support. FM 32-5 contains details on COMSEC and ECCM.

10-4. Construction Support

Construction and major rehabilitation of ports, roads, railroads, inland waterways, Army airfields, and other installations in the COMMZ are provided by the engineer command of the theater army support command (TASCOM). This work is accomplished in accordance with a construction program which sets priorities, establishes standards, and forms a basis for construction supply action. The transportation command, the other mission commands, and the area support commands, as the principal Army users of the facilities constructed by the engineer command, submit to TASCOM their requirements for construction in terms of size, capacity, purpose, general location, and target dates for availability. The TASCOM-coordinated requirements are then directed to the engineer command, where plans are prepared grouping the facilities to permit efficient installation support, with consideration given to enemy threat and functional requirements. Units of the engineer command also respond to emergency construction requirements as part of the theater rear area damage control plan.

10-5. Rear Area Protection

a. Rear area protection (RAP) includes all measures taken by an area commander prior to and during the occupation of a land area that bear on the protection of the resources therein. It includes short-term, emergency actions that must be taken by rear area elements to protect themselves against enemy actions, including sabotage.

b. Command relationships for rear area protection must provide unity of command while preserving simplicity. The urgency of RAP operations demands clear-cut authority understood by all. An area commander's mission is to support his functional tenants and, at the same time, to provide for their protection. He must not, however, permit defense measures to interfere unnecessarily with mission operations. The chain of command for rear area security RAP measures is based on the seriousness of the condition that exists in the rear area. The RAP potential is that portion of a service support unit which is established in its TOE as a normalized RAP capability.

c. Many transportation units are habitually de-

ployed over vast linear distances and do not present a lucrative source for preprogrammed emergency resources. However, selected terminal operation elements and short-haul units will normally have a sufficient number of personnel reasonably close by to permit the assumption that the estimated potentials listed below will exist:

- | | |
|---|--------------------------|
| (1) Railway equipment maintenance company | Rifle platoon |
| (2) Heavy truck company | Rifle platoon |
| (3) Light truck company | Attach platoon |
| (4) Light-medium truck company | Attack platoon |
| (5) Medium truck company | Attack platoon |
| (6) Terminal transfer company | Attack platoon |
| (7) Terminal battalion headquarters | Command and control team |
| (8) Truck battalion headquarters | Command and control team |

d. Generally, transportation is a critical requirement in a RAP operation and use of transportation elements in their normal configuration should be considered before their employment in a tactical role. Perhaps the most significant contribution that transportation elements may make to security is to emphasize that each vehicle or aircraft operator can report activities sighted during their trips. A large number of specialized transportation units have significant support and damage control potentials that will have to be determined by an area commander based on the total situation.

10-6. Convoy Security

Measures necessary for the security of logistical convoys against hostile attack, loss, or pilferage include a comprehensive security program and an adequate security force that is well trained. These security measures are grouped into the following general categories:

a. *Preventive Measures.* Basic preventive measures in logistical convoy security include—

(1) Preceding the movement, thorough briefing of all personnel traveling in convoy, including details of route, speed, convoy composition, checkpoints, emergency procedures, safety precautions, and vehicle recovery operations.

(2) Denying access by unauthorized persons to trucks and to loading and unloading areas.

(3) Holding transport operating personnel responsible for the security of supplies in transit.

(4) Fully utilizing all resources available in the provision of safety and the prevention of pilferage.

(5) Irregular schedules for movement.

b. Active Measures. For general guidance on motor movement security for stability operations, see FM 31-16. Maximum precautions taken by military police escorts vary with the conflict environment. The strength and composition of the escort will depend upon resources available, the threat, and availability of other security forces. Military police units normally assigned this mission have the organic capability for providing added firepower, communications, and armored vehicle support. The military police elements are placed under command of the convoy commander for the duration of the mission. Basic active measures in convoy security include—

(1) Patrol of roadways from the air.

(2) Mounting of automatic weapons on all escort vehicles.

(3) Provision of radio as the principal means of communication within the convoy.

(4) Provision of aerial identification panel markers for use on convoy escort vehicles as a means of air-ground communications.

10-7. Rail Security

a. Military police units involved in railway security may be attached or assigned to a transportation railway brigade, group, or battalion, or they may be a unit of the area military police. Railway security may be performed by guards detailed from the shipping unit, by area support group military police units, by military police units attached to the military railway service, or by civil police.

b. Military police security units are usually allocated on the basis of one battalion to each transportation railway group or one company to each railway battalion. The organization and strength of military police security units will, however, vary widely according to the support situation, rail network, pilferage rate, distance between supply points, and type and amount of goods transported.

c. Military police railway security measures are limited mainly to a defensive posture on rolling stock and in marshaling yards, but do

not extend to warehouses or other storage facilities.

10-8. Water Terminal Security

a. Except when expressly indicated by higher command, from the time military cargo arrives in a water terminal until it leaves, the security of the cargo at the terminal is a responsibility of the terminal commander. The commander of the terminal delegates responsibility for cargo security to subordinate officers of his command as circumstances require.

b. Each terminal commander coordinates his security plans with the provost marshal of the area support group, who prepares plans that cover the prevention of pilferage. The provost marshal may supervise both the military police units that are assigned to the terminal and the civilian guards that are utilized in the terminal.

c. A cargo security officer may be appointed by the terminal commander to forestall mishandling and pilferage of Government cargo aboard a vessel at a terminal, to report damage and pilferage, to make recommendations for preventing such losses, and to deliver special cargo entrusted to his care to the proper receiving officer.

10-9. Cargo Decontamination

a. New methods of packaging and shipping military materiel and the rapid transport systems now utilized by the Armed Forces have not reduced the possibility of human, animal, and plant disease and pest organisms being unintentionally introduced into the United States in cargo arriving from overseas areas. Soil adhering to equipment, material, and shipping containers being transported to CONUS (continental United States) installations may contain agricultural pests and human and animal disease organisms not known to occur in this country. It is therefore essential that an intensive surveillance program be carried on throughout the Army to prevent the introduction and establishment in the United States of disease and pest organisms of foreign origin.

b. Commanders of all installations receiving cargo originating outside CONUS are required to establish procedures to detect the presence of quarantinable materials and organisms in such cargo and to assure that pesticide chemicals applied before shipment are removed properly. Procedures include the following:

(1) Cargo items and containers are inspected for the presence of soil contamination, plant material, and insect or rodent infestations. When such contamination or infestations are found, inspectors immediately notify the water terminal engineer or surgeon, who, in turn, contacts the command entomologist or command surgeon and requests appropriate technical guidance in the treatment and disposition of the contaminant or infestation.

(2) Insecticides and rodenticides on or in equipment, cargo, and cargo containers are removed before any further processing of cargo items. Where practical, a vacuum cleaner is used to collect insecticide dust from individual cargo items and packages as they are removed from containers. After the contents are removed, the inner surfaces of cargo containers are vacuumed to remove all remaining dust. All insecticides and rodenticides removed from cargo items and containers are stored in separate closed receptacles for collection and proper disposal by the engineer.

(3) Personnel involved in the removal and disposal of insecticides or rodenticides wear respirators and protective clothing recommended by the surgeon or the safety officer.

10-10. Operational Security

a. Operational security is a prime requirement for all headquarters and operating units. Each organization should maintain continuous surveillance of its operations to insure that their activities do not provide intelligence to the enemy.

b. Successful enemy exploitation of friendly forces' stereotyped patterns of activity and associated communications have been detected in past operational security surveys. Examples of specific sources of information or indication of activities identified by prior operational security surveys are listed in the following subparagraphs:

(1) *Operational indicators.*

(a) Stereotyped patterns of reconnaissance activity.

(b) Stereotyped patterns of attack and withdrawal against specific types of targets or targets in a particular location.

(c) Stereotyped times of preparatory airstrikes and artillery fire in relation to the attack by ground or amphibious forces.

(d) Stereotyped sequences of events comprising the various phases of an operation.

(e) Coordination with civil agencies which

do not have proper safeguards for classified information; for example, air traffic control procedures, coordination of convoy movement, etc.

(2) *Sources of information for human intelligence collectors.*

(a) Subverted allied military or indigenous civilian personnel.

(b) Public information releases.

(c) Posting of operations orders, flight plans, schedules, etc., in insecure areas.

(d) Distinctive emblems or paintings on vehicles and aircraft.

(e) Identification of recipients of supplies being shipped to support an operation together with operation nicknames, delivery deadlines, etc.

(f) Logistic buildups and pre-positioning of supporting materials and facilities.

(g) Special religious services just before operations.

(3) *Sources of information from communications activities.*

(a) Plain language communications covering an entire spectrum of activity associated with planning and preexecution phases of operations.

(b) Use of unchanging or infrequently changing call signs and/or call sign suffixes by combat elements and those supporting elements which are active only when an operation is imminent.

(c) Stereotyped message characteristics, such as precedence, addressee patterns, message lengths, codes, or cryptosystems, which are unique to preoperations activity.

(d) Use of unchanging frequencies and repetitive use of specific frequencies in given operations areas.

(e) Movement and/or checkout of communications equipment in operations area before operations begin.

(f) Significant increases and/or decreases in the volume of enciphered communications (not protected by traffic flow security feature).

(g) Transmission at times when communications are not normally active.

(h) Use of unauthorized codes; for example, homemade.

(i) Use of brevity codes in the belief that they provide security.

(j) Use of authorized codes which provide only 24, 48, or 72 hours protection for encoding information of longer term security.

APPENDIX A

REFERENCES

A-1. Army Regulations (AR's)

(C) 10-122	United States Army Security Agency (U)
59-106	Operation of Air Force Air Terminals
310-25	Dictionary of United States Army Terms
310-31	Organization and Equipment Authorization Tables of Organization and Equipment (The TOE System)
310-49	The Army Authorization Documents System (TAADS)
310-50	Authorized Abbreviations and Brevity Codes
708-1	Cataloging and Supply Management Data.
725-50	Requisitioning, Receipt, and Issue System

A-2. Field Manuals (FM's)

3-1	Chemical Biological, and Radiological (CBR) Support
5-162	Engineer Construction and Construction-Support Units
8-10	Medical Support, Theater of Operations
9-6	Ammunition Service in the Theater of Operations
11-20	Signal Operations, Theater of Operations
11-23	US Army Strategic Communications Command (Theater)
29-6	The Personnel Command
29-20	Maintenance Management in Theaters of Operations
29-22	Maintenance Operations in the Field Army
29-23	Direct Support Maintenance Battalion (Nondivisional)
30-9	Military Intelligence Battalion, Field Army
31-16	Counter guerrilla Operations
31-23	Stability Operations, US Army Doctrine
31-82	Base Development
31-85	Rear Area Protection (RAP) Operations
(C) 32-5	Signal Security (SIGSEC) (U)
(S) 32-10	USASA in Support of Tactical Operations (U)
41-10	Civil Affairs Operations
44-1	US Army Air Defense Artillery Employment
54-3	The Field Army Support Command
54-6	The Area Support Command
54-7	The Theater Army Support Command
55-8	Transportation Intelligence
55-10	Army Transportation Movements Management
55-11*	Army Movement Control Units
55-15	Transportation Reference Data
55-20	Army Rail Transport Operations
55-30	Army Motor Transport Operations
55-37*	Army Motor Transport Units
55-40	Army Combat Service Support Air Transport Operations
55-50*	Army Water Transport Operations

*To be published.

55-51*	Army Amphibian and Landing Craft Units
55-60	Army Terminal Operations
55-61*	Army Terminal Units
100-10	Combat Service Support
100-15	Larger Units, Theater Army—Corps
(C) 100-20	Field Service Regulations—Internal Defense and Development (IDAD) (U)
100-27	US Army/US Air Force Doctrine for Tactical Air Lift Operations
101-5	Staff Officers Field Manual: Staff Organization and Procedure
101-10-1	Staff Officers Field Manual: Organizational, Technical and Logistical Data
101-10-2	Staff Officers Field Manual: Organizational, Technical, and Logistical Data—Extracts of Nondivisional Tables of Organization and Equipment
(C) 101-20	United States Army Aviation Planning Manual (U)

A-3. Tables of Organization and Equipment (TOE)

1-256	Headquarters and Headquarters Company, Aviation Battalion
1-258	Assault Support Helicopter Company
1-407	Aviation Service Support Company
10-7	Supply and Service Company, Supply and Transport Battalion, Armored Division, or Supply and Service Company, Supply and Transport Bat- talion, Infantry Division, or Supply and Service Company, Supply and Transport Battalion, Infantry Division (Mechanized)
11-147	Signal Small Headquarters Operations Company
11-500	Signal Service Organization
14-500	Finance Service Organization
29-42*	Headquarters, Headquarters Company, and Band (DISCOM), Airmobile Division
29-52	Headquarters, Headquarters Company, and Band, Support Command, Airborne Division
29-147	Supply and Service Company, Direct Support
29-550*	Data Processing Unit
54-12	Headquarters and Headquarters Company and Special Troops, Field Army Support Command
54-22	Headquarters and Headquarters Company, Army Support Brigade, or Headquarters and Headquarters Company, Corps Support Command
55-2	Headquarters and Headquarters Company, Transportation Command (TA- SCOM)
55-4	Transportation Movement Control Agency
55-6	Transportation Movement Control Center (FASCOM)
55-7	Transportation Movement Control Center (Corps support Brigade)
55-11	Headquarters and Headquarters Company, Transportation Motor Trans- port Brigade
55-12	Headquarters and Headquarters Detachment, Transportation Motor Transport Group
55-16	Headquarters and Headquarters Detachment, Transportation Motor Transport Battalion
55-17	Transportation Light Truck Company
55-18	Transportation Medium Truck Company
55-19	Transportation Car Company, Support Command or Airborne Corps
55-27	Transportation Cargo Carrier Company (Tracked)
55-28	Transportation Heavy Truck Company
55-52	Headquarters and Headquarters Company, Transportation Composite Group

*To be published.

55-62	Headquarters and Headquarters Company, Transportation Brigade, Field Army Support Command or Corps Support Command
55-67	Transportation Light-Medium Truck Company
55-84	Transportation Motor Transport Company, Supply and Transport Battalion, Infantry Division (Mechanized)
55-87	Transportation Motor Transport Company, Supply and Transport Battalion, Armored Division
55-88	Transportation Motor Transport Company, Supply and Transport Battalion, Infantry Division
55-111	Headquarters and Headquarters Company, Transportation Terminal Brigade
55-112	Headquarters and Headquarters Company, Transportation Terminal Group
55-116	Headquarters and Headquarters Company, Transportation Terminal Battalion
55-117	Transportation Terminal Service Company
55-118	Transportation Terminal Transfer Company
55-128	Transportation Medium Boat Company
55-129	Transportation Heavy Boat Company
55-138	Transportation Light Amphibian Company
55-139	Transportation Medium Amphibian Company
55-158	Transportation Lighterage Maintenance Company, Direct Support
55-201	Headquarters and Headquarters Company, Transportation Railway Brigade
55-202	Headquarters and Headquarters Company, Transportation Railway Group
55-217	Transportation Electric Power Transmission Company
55-226	Headquarters and Headquarters Company, Transportation Railway Battalion
55-227	Transportation Railway Engineering Company, Transportation Railway Battalion
55-228	Transportation Railway Equipment Maintenance Company, Transportation Railway Battalion
55-229	Transportation Train Operating Company, Transportation Railway Battalion
55-259	Heavy Helicopter Company
55-520	Transportation Railway Service Teams
55-530	Transportation Watercraft Teams
55-540	Transportation Motor Transport Teams
55-560	Transportation Terminal Service Teams
55-580	Transportation Movement Control Teams

A-4. Department of the Army Pamphlet (DA Pam)

310-35 Military Publications: Index of Standardization Agreements

A-5. Department of Defense Regulation (DOD Reg)

4500.32-R Military Standard Transportation and Movement Procedures (MILST-AMP)

A-6. Studies

(C) Aviation Requirements for the Combat Structure of the Army, II (ARCSA II) (U), 31 March 1967, Assistant Chief of Staff for Force Development, Washington, D.C.

The Administrative Support, Theater Army, 1965-70 (TASTA-70), 28 February 1966, US Army Combat Developments Command Combat Service Support Group, Fort Lee, Virginia.



APPENDIX B

INDEX OF TRANSPORTATION-RELATED INTERNATIONAL STANDARDIZATION AGREEMENTS

The following is a list of transportation-related international standardization agreements extracted from Department of the Army (DA) Pam 310-35. The use of international standardization agreements is outlined in paragraphs 2-14 and 2-15. An asterisk by the agreement number indicates agreements which are currently in draft form and are not published at this printing.

B-1. Agreements Sponsored by Army

Title	NATO STANAG's	CENTO STANAG's	SEATO SEASTAG's	ABC SOLOG's	Implementing documents	Disseminating documents
Bridge Classification Markings	2010 (4th Ed)	2010	2010	----	FM 5-36.	
Military Route Signing	2012 (3rd Ed)	2012	2012	----	FM 5-36, 19-4; TM 21-305.	
Operation Orders, Annexes to Operation Orders, and Administrative/Logistics Orders.	2014 (3rd Ed)	2014	2014	----	FM 7-10, 17-1, 17-36, 30-5, 101-5.	
Route Classification	2015 (3rd Ed)	2015	2015	----	FM 5-36.	
Military Symbols	2019 (2d Ed)	2019	2019	----	FM 21-30.	
Marking of Military Cargo for International Movement by All International Means of Transport.	2023*					
Military Road Traffic Lighting Regulations	2024 (4th Ed)	2024	2024	----	FM 5-36, 19-25, 30-15.	
Basic Military Road Traffic Regulations	2025 (2d Ed)	2025	2025*	----	FM 19-25, 21-60, 55-15.	
Standard Travel Order	2026 (2d Ed)	2026*	----	----	AR 310-10.	
Marking of Military Vehicles	2027 (2d Ed)	2027	2027	----	MIL-STD-642H; FM 5-36, 55-15; TM 55-310; AR 746-1.	TB 34-9-249.
Operational Road Movement Orders, Tables, and Graphs	2041 (2d Ed)	2041	2041*	51	FM 5-1, 5-136, 5-162, 6-20-1, 6-140, 7-20, 17-1, 44-1, 55-10, 55-30, 61-100, 101-5.	
Emergency Alarms of Hazards or Attack	2047 (2d Ed)	2047	2047*	110	FM 6-115, 6-140, 7-10, 7-20, 7-30, 17-1, 21-40, 21-41, 21-48, 21-60, 44-1, 44-2, 44-3, 44-95, 44-96.	
Rear Area Security and Rear Area Damage Control	2079 (2d Ed)	2079 (2d Ed)	2079	----	FM 6-20-1, 6-140, 11-23, 11-125, 17-1, 17-30, 17-36, 17-37, 17-95,	

Title	NATO STANAG's	CENTO STANAG's	SEATO SEASTAG's	ABC SOLOG's	Implementing documents	Disseminating documents
Handling and Reporting of Captured Enemy Equipment and Documents.	2084 (2d Ed)	2084	2084	----	21-40, 31-16, 31-85, 54-4, 54-6, 55-1, 61- 100, 100-15. FM 30-5, 30-16.	
Methods of Assessing Enemy Logistical, Movement and Transport Capabilities.	2117					
Logistics Assistance	2135*					
Route Network—Definitions and Characteristics	2151 (2d Ed)	2151	2151	----	FM 5-36, 19-4, 55-10, 55-30.	
Parallel Marking of Special Flat Wagons and Heavy Military Vehicles.	2153	----	----	----	AR 746-1; USAREUR Reg 55-355, MIL-STD- 642F, MIL-P-33206.	
Definitions and Regulations for Military Motor Movements by Road.	2154 (2d Ed)	2154	2154	----	FM 5-36, 6-140, 17-1, 19-1, 19-4, 55-4, 55- 30, 61-100, 101-10-1.	
Road Movement and Transport Documents	2155	2155	----	----	FM 55-10, 101-5, 101- 10-1.	
Transport Request and Reply to Transport Request	2156	----	----	----	FM 55-10.	
Identification of Military Trains	2158 (2d Ed)	----	----	----	FM 55-20.	
Identification of Movement Control and Traffic Control Personnel and Agencies.	2159 (2d Ed)	2159	2159	----	FM 5-36, 55-10.	
Vehicle Weight and Dimension Card	2163 (2d Ed)	----	2163	----	FM 5-36, 55-30.	
Advice of Movement	2164	----	----	50R	FM 55-10.	
Forecast Movement Requirements—Rail, and Inland Waterways.	2165					
Movement and Transport Documents Used for Movements by Ship.	2166	----	----	131	FM 55-10.	
Procedure for Military Trains Crossing Frontiers	2171					
Classification and Marking of Ordinary Flat Wagons Used for the Transport of Military Vehicles.	2172*					
Regulations for the Securing of Military Tracked and Wheeled Vehicles on Railway Wagons.	2173*					
Map Conventional Signs	2202 (2d Ed)	2202*	2202	----	FM 21-31.	
NATO Code of Colors for Identification of Ammunition (Except Ammunition of a Caliber Below 20mm).	2321 (2d Ed)	----	----	----	MIL-STD-709, FED STD 595.	TB 34-9-137.
Minimum Markings for the Identification of Ammunition (and Its Packaging).	2322					
Classification of Restrictions Affecting the Movement of Certain Military Equipment and Vehicles by Land on Continental Western Europe.	2805-E	----	----	----	FM 55-10, 55-15, 55-20, 55-30; TM 55-206, 55- 310.	

B-2. Agreements Sponsored by Air Force

Title	NATO STANAG's	CENTO STANAG's	SEATO SEASTAG's	ASCC air standards	Implementing documents	Disseminating documents
Aeromedical Evacuation	3204 (3d Ed)	3204*	3204	----	AR 40-535.	TB 34-9-262.
Air Transport of Dangerous Cargo	3327 (2d Ed)	3327	3327	44/9A	FM 55-40, TM 38-250.	
System for Tracing Missing Air Cargo	3332 (3d Ed)	3332	----	44/8A		
Weight and Balance Requirements in Transport Aircraft.	----	3462	3462	----	TM 55-405-9	
Planning Procedures for Tactical Air Transport Operations.	3463*					
Responsibilities of Air Transport Units and User Units in the Loading and Unloading of Transport Aircraft in Tactical Air Transport Operations.	3466	----	3466*	44/18C	AR 59-106, FM 57-1, CONARC TT-110-101-1.	
General Rules Covering the Transport of Loads by Helicopter.	3468 (2d Ed)	3468	3468*	----	FM 1-15, 6-20-1, 6-140, 17-1, 55-40, 57-35; TM 55-450-8, 55-450-15.	
Classification, Certification, and Labeling of Dangerous Cargo.	3571					

B-3. Air Standardization Coordinating Committee Air Standards (Unrelated to Other Agreements)

Title	ASCC air standards	Implementing documents	Disseminating documents
Data on Dimensions and Load Capabilities of Transport Aircraft	44/16B	AR 705-35, MIL-STD-814A. FM 57-1, CONARC 110-101-1.	
Cargo Aircraft Tiedown Fittings, Strength, and Location	44/17A		
Responsibilities of Air Transport Units and User Units in the Loading and Unload- ing of Transport Aircraft in Air Transport Operations.	44/18C		
Criteria for Air Transportability and Air Delivery of Equipment	44/21A	AR 70-39, MIL-STD-814A, 669B.	
Cargo/Passenger Ground Handling Systems Exchange of Information	44/22B		
Division of Responsibility Between Ground and Air Forces on Drop Zones in Tactical Operations.	44/23		
Basic Operating Responsibilities and Procedures for the Carriage of Cargo by Helicopter.	44/24	FM 1-15, 57-35.	
Personnel Operating Procedures for Helicopters in the Tactical Transport Role	44/25A		



B-4. SOLOG's (Unrelated to Other Agreements)

FM 55-1

Title	ABC SOLOG's	Implementing documents	Disseminating documents
Principles and Policies of Movements	27R	FM 55-10.	
Movements Duties in the Field	31R	FM 55-10.	
Military Load Classification of Civil Bridges by the Reconnaissance and Correlation Methods.	105	FM 5-36.	
Standardization of Policies and Procedures Governing the Regulation/Control and Identification of Army Traffic in the Combat Zone.	118	FM 61-100.	

APPENDIX C

SAMPLE TRANSPORTATION PLAN AND ANNEX AND OUTLINE FOR PREPARING A STANDING OPERATING PROCEDURE FOR AN ASSISTANT CHIEF OF STAFF, MOVEMENTS, AND A TRANSPORTATION STAFF SECTION

Section I. GENERAL

C-1

The sample formats presented in this appendix for the transportation plan, transportation annex to the administrative/logistics order, and outline standing operating procedure have been appropriately condensed for the transportation staff officer.

C-2

The transportation plan (sec II) is normally used in the initial stages of planning, and the transportation annex (sec III) is prepared to supplement the administrative/logistics order. See FM 101-5 for details on the administrative/logistics order. Section IV presents an outline for a standing operating procedure for assistant chiefs of staff, movements, and transportation staff sections.

Section II. FORMAT FOR TRANSPORTATION PLAN

(Any of the paragraphs and subparagraphs below may consist wholly, or in part, of references to the appropriate annexes, and the annexes in turn may be amplified by properly referenced appendixes.)

CLASSIFICATION

Copy No. _____ of _____ copies

TRANSPORTATION PLAN _____

(Number)

(Transportation section (unit))

(Location)

(Date-time group)

(Message reference)

Maps and references: Sheet name and number, scale, series, and edition number shown for each map. Other references may include city plans, navigation charts, other plans bearing on the transportation plan, etc.

Time zone used throughout the plan _____

CLASSIFICATION

 CLASSIFICATION

1. SITUATION

a. Enemy Forces. All capabilities of the enemy to hinder, disrupt, or otherwise affect the operations of the transportation units and other elements of the command, including such items as damage to lines of communication, use of mass destruction weapons, etc. (Annex B, Intelligence).

b. Friendly Forces. Include information about higher, adjacent, supporting, and reinforcing units.

c. Attachments and Detachments.

d. Assumptions. Any pertinent policies and logical assumptions needed in preparing the plan; for example, proposed locations of major unit boundaries, troop strengths to be supported in different phases of the operation, etc.

2. MISSION. Mission of transportation units in support of the command.

3. EXECUTION

a. Concept of Operation. The transportation officer's overall concept of the operation, including probable increases in supported units, additional territory to be supported, etc. (Annex C, Concept of Operations).

b. Supported Forces. Units to be supported, their location and strength, with emphasis on those units engaged in protection of lines of communication and transportation units or activities, including higher, adjacent, and supporting units of both US and allied forces.

c. Specific Tasks Assigned to Units. Similar information for each mode of transportation—projected loads, schedules, facilities, lines of communication, etc—is submitted for each mode as follows:

- (1) Annex D, Rail.
- (2) Annex E, Motor.
- (3) Annex F, Air.
- (4) Annex G, Water.
- (5) Annex H, Inland Waterway.

d. Troop Carrier Space. Proposed use of air capacity allocated to the command although transportation organizations do not assign tasks.

e. Coordinating Instructions.

- (1) Defense and security. Reference to appropriate SOP or defense plan.
 - (a) Individual defense measures.
 - (b) Facilities.
 - (c) Lines of communication.
 - (d) Shipments.
 - (e) Censorship.
 - (f) Communications.

(2) Characteristics of area of operations.

(a) Weather. Includes temperatures, wind conditions, rainfall, etc., or refers to the intelligence annex of the operations order.

(b) Terrain and hydrography. Critical terrain features, soil traffic-ability, beach gradients, and any known obstacles and their possible effect on the transportation modes.

(c) Lines of communication. All lines of communication and their physical condition.

(3) Counterintelligence (Annex B, Intelligence).

 CLASSIFICATION

CLASSIFICATION

- (4) Technical intelligence (Annex B, Intelligence).
- (5) Effective time and date.

4. SERVICE SUPPORT

a. Administration.

- (1) Policies. Reference to paragraph 1d above.
- (2) Procedures. SOP's and related guides of higher headquarters not covered elsewhere in the plan.
- (3) Required reports.

b. Logistics.

- (1) Supply. The following items are covered by reference to current SOP's when applicable.

- (a) Levels of supply.
- (b) Replacement factors and consumption rates.
- (c) Requisition procedures and cycles.
- (d) Emergency requisition procedures.
- (e) Local procurement.
- (f) Controlled items.
- (g) Surplus material.
- (h) Captured material.
- (i) Salvage and scrap.
- (j) Interservice supply.
- (k) Class VII equipment.

- (1) Equipment out of commission for parts, procedures.

- (2) Maintenance. Supporting maintenance facilities, indicated by mode, shop locations, and responsibilities of each maintenance unit.

c. Personnel.

- (1) Policies.
 - (a) Use of local civilian personnel.
 - (b) Use of prisoners of war.
 - (c) Use of US civilian personnel.
- (2) Strengths.
- (3) Replacements.
- (4) Procedures.

5. COMMAND AND SIGNAL

- a. Communications-Electronics. Annex I, Communications-Electronics.

b. Command.

- (1) Location of command posts of major commands.
- (2) Locations of transportation movements branches.

ACKNOWLEDGMENT INSTRUCTIONS.
AUTHENTICATION.

Commander (name and grade)

Annexes:

A—Task Organization (omitted)

CLASSIFICATION

 CLASSIFICATION

B—Intelligence (omitted)
 C—Concept of Operations (omitted)
 D—Rail (omitted)
 E—Motor (omitted)
 F—Air (omitted)
 G—Water (omitted)
 H—Inland Waterway (omitted)
 I—Communications-Electronics (omitted)
 Distribution

Section III. FORMAT FOR TRANSPORTATION ANNEX
TO ADMINISTRATIVE/LOGISTICS ORDER

Copy No. _____ of _____ copies

10th US Army

Location: (coordinates)

Date-time group: _____

Message reference: _____

ANNEX _____ (TRANSPORTATION) to ADMIN/LOG Order No. _____, 10th US Army
 Reference: Maps, charts, and other relevant documents.

1. SITUATION

- a. Enemy Forces. Intelligence report No. _____, Hq 10th US Army, dated _____.
- b. Friendly Forces. Operations report No. _____, Hq 10th US Army, dated _____.
- c. Attachments and Detachments. The transportation command furnishes necessary rail and water terminal transportation service in support of 10th US Army.
- d. Other Forces Support. 5th US Air Force furnishes necessary air transportation service in support of 10th US Army.

2. MISSION. Transportation elements will provide transportation service support for assigned and attached troops of 10th US Army and transportation service support for Air Force units to base level.

3. CONCEPT OF OPERATIONS. (Include overall scheme of support by transportation units.)

- a. 48th Trans Gp (Trk), _____, furnishes highway transportation service as directed.
(coordinates)

- (1) 264th Trans Bn (Trk), _____
(coordinates)

- (2) 265th Trans Bn (Trk), _____
(coordinates)

- (3) 266th Trans Bn (Trk), _____
(coordinates)

- (4) 267th Trans Bn (Trk), _____
(coordinates)

- b. 54th Trans Gp (Trk), _____, furnishes highway transportation service as directed.
(coordinates)

 CLASSIFICATION

 CLASSIFICATION

- (1) 465th Trans Bn (Trk), _____
(coordinates)
- (2) 467th Trans Bn (Trk), _____
(coordinates)
- (3) 468th Trans Bn (Trk), _____
(coordinates)
- (4) 469th Trans Bn (Trk), _____
(coordinates)
- (5) 488th Trans Bn (Trk), _____
(coordinates)

c. 429th Support Gp, _____, furnishes field maintenance and supply support for Army fixed wing and rotary wing aircraft as required.
(coordinates)

- (1) 233d Trans Bn (TAAM & Sup, DS), _____
(coordinates)
- (2) 234th Trans Bn (TAAM & Sup, DS), _____
(coordinates)
- (3) 235th Trans Bn (TAAM & Sup, DS), _____
(coordinates)
- (4) 322d Trans Bn (TAAM & Sup, GS), _____: operates depot 631, C1 III-A items only,
(coordinates)

5-day level; operates depot 632, C1 IX-A items only, 10-day level; supports all Army aircraft maintenance units.

d. 112th Aviation Bn, _____
(coordinates)

- (1) Annex G (Army Aviation) to OPOD NO. 3, Hq 10th US Army, dated _____.
- (2) Furnishes administrative support to Hq, 10th U.S. Army.

e. 113th Aviation Bn, _____:
(coordinates)

Annex G (Army Aviation) to OPOD NO. 8, Hq 10th US Army.

f. 433d Trans Bn (Trk), _____, attached to 1st Corps effective _____
(coordinates)

g. 263d Trans Bn (Trk), _____, attached to 2d Corps effective _____
(coordinates)

h. 463d Trans Bn (Trk), _____, attached to 3d Corps effective.

i. 257th Transportation Center (Movement Control), _____, manages transportation move-
(coordinates)

ments within army area; operates TMO's, and maintains liaison with appropriate technical services.

j. Coordinating Instructions.

(1) Alternate command posts and dispersal areas will be selected and maintained. All transportation units will be prepared to relocate on order.

(2) Reports, Annex F, 10th US Army SOP.

(3) Units will be prepared to perform secondary mission as infantry.

 CLASSIFICATION

CLASSIFICATION

4. SERVICE SUPPORT

a. Supply.

(1) Supply levels.

(a) Primary depot—10 days.

(b) Secondary depot—5 days.

(2) Regulated items.

(a) Aircraft.

(b) All engines and powertrains.

(3) Resupply. Requisition schedule—10th and 25th day each month; equipment out of commission for parts—requisition as necessary.

b. Service.

(1) Transportation. Annex G, 10th US Army SOP.

(2) Loading and unloading. Responsibility of consignors and consignees.

5. COMMAND AND SIGNAL

a. Communications-Electronics. Annex G, 10th US Army SOP.

b. Command. Army ACS G4: _____, phone _____
(coordinates)

ACKNOWLEDGMENT INSTRUCTIONS

Commander (name and grade)

Annex F (omitted)

Annex G (omitted)

Distribution

OFFICIAL

/s/

/t/

ACS, G-4

CLASSIFICATION

**Section IV. OUTLINE FOR PREPARING A STANDING OPERATING
PROCEDURE FOR AN ASSISTANT CHIEF OF STAFF, MOVEMENT,
AND TRANSPORTATION STAFF SECTIONS**

Part A. GENERAL

I. PURPOSE

Outline the purpose of the SOP.

II. SCOPE

State the application and coverage of the SOP.

III. UNIT PROCEDURES

Direct the action required by subordinate units in preparation of unit SOP to include definite statement that SOP procedures of subordinate units will be based on and conform to the SOP procedure of the issuing command.

IV. RESCISSIONS

List any publications superseded or rescinded by the SOP, including fragmentary SOP's, orders, memorandums, bulletins, or other directives.

V. REFERENCES

Refer to publications which should be used in conjunction with the SOP.

VI. DEFINITIONS

Define, as required, all terms or phrases used in the SOP to insure mutual understanding and interpretation by all recipients.

VII. TRANSPORTATION ORGANIZATION (unless otherwise published)

VIII. MISSIONS, ORGANIZATIONS, FUNCTIONS

- A. Assistant chief of staff (ACS), movements, staff section.
 - 1. ACS, movements.
 - 2. Deputy ACS, movements.
 - 3. Staff branches or elements.
 - 4. Liaison officers (US Air Force, Military Sealife Command, Army, allied, and others).
- B. Field installations.
 - 1. Water terminals.
 - 2. Transfer points and other special transportation activities.
 - 3. Field transportation offices and other transportation organizations.

IX. ADMINISTRATION

- A. General.

Application and implementation of command policies and directives.
- B. Correspondence.
 - 1. Types of correspondence, with instructions for preparing, forwarding, and handling; paper economy measures.
 - 2. Classified documents.

Types of classification and authority to classify; handling, delivery, and receipting methods and procedures; security measures and responsibilities.
- C. Personnel.
 - 1. General.

Application and implementation of command policies and directives.
 - 2. Local civilian labor.

Implementation of command policies and administrative procedures for procurement, utilization, and pay; application of provisions of Geneva Convention.
 - 3. Prisoners of war.

Implementation of command policies and administrative procedures for procurement as labor; utilization, treatment, handling, and security; application of provisions of Geneva Convention.
 - 4. Replacements.

Responsibilities and procedures for requisitioning transportation replacements; implementation or elaboration of command policies and directives.
- D. Reports.

Types and quantity of administrative reports to be submitted; method and frequency of submissions (samples to be appended); application of reports control procedures.

X. INTELLIGENCE

- A. General.

Purpose and importance of transportation intelligence, transportation intelligence mission, types of intelligence, application of command directives.

B. Collection of information and direction of collection effort.

Collection agencies, essential elements of information, sources, coordination, collection plan, methods, reporting and disposition of captured enemy material for intelligence purposes.

C. Processing information.

Responsibilities and procedures for recording, evaluating, and interpreting information (to include flow charts if applicable).

D. Dissemination.

Policies, methods, criteria, security classification, transmission, time considerations.

E. Usage.

General application of intelligence to transportation operations and planning; precautions against enemy counterintelligence.

F. Counterintelligence.

Objectives, responsibilities, and application to the transportation service.

G. Reconnaissance.

Purpose and responsibility.

XI. PLANS

A. Transportation requirements.

Responsibility for maintaining current lists of transportation requirements for movement of the unit or its elements by rail, truck, inland waterway, and air.

B. Transport availability.

Responsibility for maintaining current lists of available transportation—organic, assigned, or attached to the unit (including local civilian transportation).

C. Entrucking plans.

Responsibility of subordinate units for maintaining current entrucking plans; designation of vehicles to transport personnel, supplies, and organizational equipment.

D. Traffic circulation plans.

Statement that traffic circulation plans will be coordinated with traffic circulation plan of this headquarters.

E. Special operations (examples: river crossings, pursuit, retrograde movements).

Statement that transportation aspects of subordinate troop plans for special operations will be coordinated with this headquarters.

F. Plans by reserve units.

Statement that plans by units in reserve for forward or lateral movement will be coordinated with this headquarters.

G. Pooling organizational transportation.

Procedures for pooling organizational transportation—availability reports, unit responsibilities for furnishing commissioned and noncommissioned officers, maintenance of equipment, and administrative support of personnel.

H. Civil aid.

Statement that services and subordinate units will submit plans in advance for movement of civilians and civil aid supplies, but that plans will not be implemented without prior approval.

I. Main supply routes and supply and service installations.

Responsibilities and procedures for maintaining up-to-date plans for recommending main supply routes and service installations.

XII. TRAINING

A. Responsibilities and procedures for preparing and supervising training programs of transportation units.

B. Responsibilities and procedures for exercising technical supervision over transportation training throughout the command.

XIII. DEFENSE AND DISPERSION

Implementation of command policies and directives; responsibilities of transportation units for area of defense; defense against airborne, bacteriological, nuclear, or chemical attack; defense against sabotage; measures against infiltration and guerrilla warfare; reporting procedures of enemy activity. Action to be taken with respect to local civilian personnel employed at transportation activities.

XIV. AMPHIBIOUS OPERATIONS

A. General.

Standardization of normal procedures in the preparation and execution of amphibious operations. It will apply unless otherwise prescribed.

1. Subordinate units issue SOP to conform.
2. References.

B. Planning.

Consideration must be given to the following:

1. Requirements of the tactical plan and the scheme of maneuver.
2. Availability of landing craft and ships (by type, size, cargo, and/or personnel capacity.)
3. Establishing and maintaining close liaison with the Navy, the Air Force, and task force commanders.
4. Tables to be submitted by task force commanders indicating the landing force embarkation and tonnage and the breakdown of equipment and supplies.
5. Arranging and coordinating through channels for training appropriate personnel in unit loading and embarkation.
6. Movement to the embarkation areas and delivery of equipment and supplies to include waterproofing, marking, and palletizing.
7. Supervision within the embarkation area.
8. Buildup period for supplies and ship turnaround time.
9. Alternate logistical procedures or an entire alternate plan to support alternate tactical plans being considered.

C. Movement to the staging area.

1. Warning orders.
2. Method of movement—rail, highway, air, water.
3. Control of movement.

D. Staging area.

1. Reception.
2. Spot delivery of equipment.
3. Control points to control flow of equipment and personnel to embarkation points or assembly areas.
4. Assembly areas for temporary storage of equipment and supplies to be loaded on transports.
5. Transportation to haul supplies and equipment from assembly areas to the ship.
6. Areas where final waterproofing can be completed.
7. Facilities to prepare cargo not already processed for loading.

E. Embarkation of troops.

1. Movement to embarkation point or assembly areas.
2. Control of movement to vessel.
3. Transportation to close-out area.

F. Movement to objective area.

In accordance with naval directives.

G. Ship-to-shore movement.

1. Debarkation of equipment, supplies, and service troops at the proper time to support tactical operation.

2. Control and landing of emergency supplies.

3. Evacuation of casualties by water.

H. Beach organization.

1. Transportation reconnaissance party.

2. Consolidation of supplies and transportation for subsequent logistical support of the landing force.

3. Control.

a. Vehicular traffic.

b. Transfer operations (buildup area).

4. Communication between beach organization and control vessel and ship.

XV. INSPECTIONS

A. Reference to SOP of higher headquarters relative to inspections.

B. Purpose.

C. Policy.

D. Type of inspections to be conducted (vehicle utilization, transportation training, quality of maintenance and maintenance support, efficiency of operations, records system).

E. Frequency of inspections.

F. Procedures prior to making an inspection.

G. Procedures upon completing an inspection.

H. Reports to be rendered on findings from inspections, to include a sample format, number of copies, and distribution.

XVI. AIRBORNE OPERATIONS

Implementation of command policies and directives in establishing responsibilities and procedures for participation of transportation elements in airborne operations as prescribed.

XVII. COMMUNICATIONS

A. Communication net for coordination of transportation.

B. Method of ground-to-air contact for airdrops to provide for coordination with land transportation.

C. Cross reference to communication net diagram.

Part B. PERSONNEL AND SUPPLY MOVEMENTS

I. GENERAL

General statement of responsibilities, policies, authorities, procedures, and coordination required to accomplish the various types of supply and personnel movements. Where appropriate, adequate coverage must be given to supply and personnel movements—

From water terminals to inland destinations or such other destinations as directed.

Within the communications zone.

From communications zone to combat zone.

From inland points to water terminals.

Evacuation from combat zone to communications zone.
Retrograde movements.

A. Supply movements.

1. Supply movement programs (as applicable).

Procedures and responsibilities for preparation, scope, contents, publication, and implementation.

2. Water terminal clearance programs (as applicable).

Procedures and responsibilities for preparation, scope, contents, publication, and implementation.

3. Nonprogramed movements.

Procedures concerning requests for, authorization, and execution.

4. Priorities.

Authority for establishment; procedures for obtaining, applying, and enforcing.

5. Requests for movement.

When required, responsibilities for initiating, format, methods of transmission and handling, actions required.

6. Pilferage.

Responsibilities of transportation units, the provost marshal, and shipping services; precautions and methods of prevention; reference to reports.

7. Documentation.

Types, responsibilities, and methods of preparation and distribution; requirements and responsibilities for redocumentation.

8. Military government supplies.

Policies for shipment and authority for shipment; how different from the normal military supply movement.

9. Captured enemy material.

Procedures for reporting locations and securing disposition instructions; special movement instructions.

10. Reports.

Types and quantity of reports to be submitted; methods, procedures, and frequency of preparation and submission. (Samples to be appended such as installation capacity reports, daily installation situation reports, reports of shipment, passing reports, reports of pilferage.)

B. Personnel movements.

1. Movement instructions.

Preparation, publication, and implementation procedures.

2. Requests for movement.

When required, format, methods of transmission, handling and execution methods.

3. Movement authority.

Types of command movement or travel orders, proper authentication, responsibilities for ascertaining authority for use of transportation services.

4. Quartering and messing en route.

Responsibilities and procedures for securing, furnishing, and operating.

5. Documentation.

Types, responsibilities, and methods of preparation, distribution, and usage; requirements and responsibilities for redocumentation.

6. Travel accommodations.

Implementation of command policies concerning use of various types of accommodations and equipment for movement of specific types of passengers.

7. Patients.

a. Responsibilities.

Transportation officers, military railway service, chief surgeon, commanding officers of shipping and receiving hospitals, and medical regulating officers to include responsibilities for operating, scheduling, supplying, staffing, and maintaining ambulance trains.

b. Requests for movement.

Procedures and methods as they differ from normal troop movements, to include group and individual movements to airports or seaports for evacuation.

c. Provisions of Geneva Conventions.

Application of; procedures and policies for compliance therewith in the movement of patients.

d. Services.

Special considerations for the movement of patients, including provision of attendants.

8. Prisoners of war.

a. Responsibilities.

Transportation officers, provost marshal, shipping and receiving installations.

b. Security.

Responsibilities, methods, and procedures for obtaining and utilizing security personnel and facilities.

c. Requests for movement.

Procedures and methods as they differ from normal troop movements.

d. Provisions of Geneva Convention.

Application of; procedures and policies for compliance therewith in the movement of prisoners of war.

9. Civilians, refugees, and displaced persons.

Implementation of command policies concerning travel authority; procedures for requesting and performing movements of this category of personnel.

10. Reports.

Types and quantity of reports to be submitted; methods, procedures, and frequency of preparation and submission (samples to be appended such as reports of shipment, passing reports, station lists, unit directories).

II. RAIL MOVEMENTS

A. General.

Policies and factors involved in selecting and accomplishing movements via rail.

B. Supply movements.

1. Releases.

When required, methods of obtaining, formats, dissemination, action required.

2. Routing.

Responsibilities and procedures for determination, coordination, and accomplishment.

3. Diversions and reconsignments.

Authority to effect diversions with consideration of the various command areas, procedures for initiating requests, and execution.

4. Records and reports.

Responsibilities and methods for the maintenance of specific records; appropriate reference to reports to be submitted.

C. Personnel movements.

Troops.

1. Military authority index numbers.

Purposes, composition, methods and procedures for assignment and usage; marking on and eradicating from trains.

2. Halts.

Types of halts; policies, procedures, and responsibilities in the establishment and conduct of halts.

3. Travel warrants.

Types, forms, authority, and responsibilities for issue, distribution, and usage.

4. Troop train commanders.

Appointment, responsibilities and functions, relationship with transportation personnel, instructions to be furnished.

5. Rations and water.
Responsibilities and procedures for securing, furnishing en route, and disposition at destination.
6. Discipline of troops.
Responsibilities and command policies, police of rail equipment, sanitation.
7. Diversions.
Authority for ordering; responsibilities and procedures for effecting; reference to reporting.
8. Records and reports.
Responsibilities and methods for the maintenance of specific records and appropriate reference to reports to be submitted.

III. HIGHWAY MOVEMENTS

A. General.

- Policies and factors involved in selecting movements via highway.
1. Highway regulations.
Purpose, application or scope, responsibilities, methods and procedures for accomplishment.
 2. Convoy clearance.
Minimum vehicle requirements, convoy symbols, procedures and format for requesting and furnishing, routing halts, convoy composition restriction, tracked or outsize vehicle restrictions.
 3. Highway regulation points.
Purpose, establishment basis, responsibilities and procedures for operation, required records.
 4. Traffic control.
Responsibilities, relationship to highway regulation, coordination measures effected with provost marshal.
 5. Return loads.
Policies, methods, and procedures for securing and reporting.
 6. Convoy commanders.
Appointment, responsibilities and functions, relationship with transportation personnel, instructions to be furnished.
 7. Halts.
Types, policies, procedures, and responsibilities for establishment and conduct of halts; area policing.
 8. Security.
Responsibilities and methods of conducting defensive measures.
 9. Records and reports.
Responsibilities and methods for maintenance of required records; reference to reports to be submitted.

B. Supply movements.

1. Releases.
When required, methods of obtaining, formats, dissemination, actions required.
2. Diversions and reconsignments.
Authority to effect diversions with consideration of various command areas, procedures for initiating requests, and execution.
3. Records and reports.
Types of records required to be maintained on personnel movements; reference to reports to be submitted.

IV. AIR MOVEMENTS

A. General.

Amplification of command policies on use of air transportation (intratheater and intertheater) to include responsibilities, utilization, and procedures in the employment of organic helicopter units. Responsibilities for coordination with Air Force aerial ports.

1. Submission of requirements.

Responsibilities for, timing, format, procedures, and policies affecting submission of advance and firm requirements for air movement of supplies and personnel.

2. Air tonnage allocations.

Controlling agency; procedures for application, allocation, and use of allocations; formats.

3. Air priorities system.

Controlling agency; procedures and responsibilities for application, determination, dissemination, and use of priorities; implementation of command policies and directives.

4. Aerial port calls.

Responsibilities and procedures for the issue of port calls for supply and personnel movements; implementation and execution of such calls.

5. Special movement control actions.

Special actions required to integrate movement control of air transportation with other applicable modes of transportation.

6. Loading and unloading of aircraft.

Policies, responsibilities, and procedures for loading and unloading troops, accompanied supplies, and equipment at aerial ports.

7. Diversions and reconsignments.

Authority; procedures and channels prescribed for effecting and executing diversions or reconsignments.

B. Supply movements.

1. Designation for air movement.

Authority for, responsibilities, how accomplished and disseminated, actions to be taken.

2. Special packing requirements.

Special instructions for packing or preparing supplies for air movement.

3. Special marking.

Types; responsibilities for applying marking on containers and for obliterating old markings.

4. Documentation.

Responsibilities and procedures for preparing and distributing established documents.

5. Aerial supply.

Amplification of command policies and directives on packaging and delivery responsibilities; methods and procedures for obtaining and accomplishing aerial supply, methods and responsibilities for marking landing or drop zones.

6. Records and reports.

Responsibilities and methods for maintenance of specific records, and reference to reports to be submitted.

C. Personnel movements.

1. Preparation for air movement.

Command policies and directives on procedures and requirements for preparing units and individuals for air movement.

2. Movement to aerial ports.

Procedures and responsibilities for the movement of units and individuals to aerial ports for air movement.

3. Documentation.

Preparation, distribution, and uses of established flight forms and documentation.

4. Records and reports.

Responsibilities and methods for maintenance of specific records, and reference to reports to be submitted.

V. INLAND WATERWAY MOVEMENTS

A. General.

Policies and factors involved in selecting shipments for movement by inland waterways.

1. From deep water terminals to inland points.

General procedures and policies concerning use of inland waterways for this type of movement and responsibilities for accomplishing.

2. Between inland points.

General procedures and policies concerning use of inland waterways for this type of movement and responsibilities for accomplishing.

3. Routing.

Responsibilities and procedures for determination, coordination, and accomplishment.

4. Diversions and reconsignments.

Authority to make diversions and procedures for initiating requests.

5. Priorities.

Applying established priorities to movements via inland waterways.

6. Records and reports.

Responsibilities and methods for maintenance of required records; methods and frequency of submitting specific reports (formats appended).

B. Supplies (releases).

When required, methods of obtaining, formats, dissemination, actions required.

C. Personnel.

Application of this mode of transportation to the movement of personnel.

Part C. TRANSPORT SERVICES

I. MILITARY RAILWAY SERVICE

A. General.

Policies and procedures for—

1. Integration of rail transportation in the theater transportation net.
2. Operational control.
3. Coordination with adjacent commands for use of rail capacity and support of operating units.
4. Coordination of the theater rail plan for selection, rehabilitation, and operation of rail lines in support of theater strategic plans.

B. Mission.

Rail net and facilities operated; terminals; installations and commands supported.

C. Organization.

Operating units available, location, and operating limits.

D. Functions.

1. Responsibilities for operation and maintenance of military railways.
2. Responsibilities for operation and maintenance of equipment.
3. Responsibilities for operation and maintenance of freight, passenger, and special trains.

E. Planning.

1. Long-range planning responsibility and procedures; selection of rail primary and alternate routes; determination of line capacity; troop, equipment, and supply requirements; rehabilitation and project requirements; communications and security requirements; demolition plans.

2. Current operational plans; current rail line capacity and requirements; phases of operation; selection and rehabilitation of new or additional railheads, yards, and installation facilities.

F. Operations.

Procedures for dissemination and implementation of movement programs; coordination with field transportation officer; priorities for and utilization of rail equipment; responsibility for preparation and compilation of operational and situation reports; procedures for ordering and documentation of cars; responsibilities for scheduling special trains; responsibility and methods of loading, blocking, and bracing of railcars.

G. Maintenance.

Responsibility, procedures, inspections, reports, and standards for maintenance of military and utility railway facilities and equipment; including organizational, field, and depot maintenance.

H. Supply.

Responsibility and procedures for requisitioning, stocking, distributing, maintaining levels of, disposing of excess, and accounting for railway operating and maintenance supplies; requirements and priorities for major items, including locomotives and rolling stock.

I. Intelligence and reconnaissance.

Responsibility and procedures for collecting, processing, and using rail intelligence.

J. Security.

Procedures, responsibility, coordination, and requirements for security of supplies en route by rail, and security of trains and rail line-of-communication facilities; defense and demolition plans.

K. Records and reports.

Responsibility and procedures for reports—railway operation, situation, personnel status, equipment maintenance and inspection, equipment status, and project.

L. Training.

Responsibility—unit and technical training.

II. HIGHWAY TRANSPORT SERVICE

A. General.

Policies involved in control, operation, and maintenance of facilities, equipment, and installation; command responsibility; technical supervision required and agencies involved.

B. Mission.

Service provided; extent of operation.

C. Functions.

1. Scheduled and nonscheduled operations.

2. Maintenance of equipment—responsibilities, procedures, facilities, and inspection practice.

D. Planning (operational).

Computation of troop and equipment requirements; capability and capacity estimate; communication procedure and requirements; rehabilitation requirements.

E. Operations.

Operational procedures and controls; pooling and utilization of equipment.

F. Maintenance.

Responsibilities and procedures for maintenance; regulations and reports.

G. Supply procedure.

Responsibilities for supplies, authorized levels, requisitioning procedures, accounting methods, disposal of excesses.

H. Intelligence and reconnaissance.

Responsibility for collection, collation, evaluation, and dissemination of highway transportation intelligence and reconnaissance information.

I. Security.

Responsibilities; plans—disaster and defense; convoy and cargo security; equipment and facilities.

J. Records and reports.

Responsibility; operational and personnel status reports, technical reports; miscellaneous.

K. Training.

Responsibility—unit and technical training.

III. INLAND WATERWAYS SERVICE

A. General.

Policies involved in the control, operation, and maintenance of facilities, equipment, and installations; command responsibility; technical supervision required and agencies involved; responsibilities for operational control.

B. Mission.

Service provided, extent of operation, limitations of craft and facilities, capabilities of the system.

C. Organization.

Equipment and units available, location of operating units and facilities, terminals served.

D. Functions.

1. Scheduled and nonscheduled operations.
2. Maintenance of equipment—responsibilities, procedures, facilities, inspection practices, and periodic overhaul.

E. Planning.

Computation of troops and equipment requirements, development of supply requirements, capability and capacity estimate, rehabilitation requirements and computations, construction requirements and responsibilities, communications procedures and requirements.

F. Operations.

Operational procedures—utilization of equipment; coordination with field transportation officers; terminal operations and operational control, including position reports, sailing orders, sailing radios, maintenance of operational reports and statistics; communication net (call letters, frequencies); watches maintained; documentation of shipments; preparation of manifests; fueling facilities and procedures.

G. Supply.

Responsibility for supplies, authorized levels, requisitioning procedures, accounting methods, disposal of excesses.

H. Messing.

Messes authorized, locations, accounting for subsistence supplies, ration cycle, breakage allowances.

I. Security.

Responsibilities, plans (disaster and defense), cargo security, equipment, and terminals.

J. Maintenance.

Responsibilities and procedures for maintenance of waterways, locks, terminals, and equipment; inspections.

IV. AIR TRANSPORT SERVICE (AIR FORCE AND ARMY AVIATION)

A. General.

Policies involved in control, operation, and maintenance of facilities, equipment, and installations; command responsibility; technical supervision required and agencies involved; responsibility for operational control.

B. Mission.

Service to be provided by organic helicopter units, Air Force troop carrier units, and other aircraft in direct support; extent of operation.

C. Functions.

1. Scheduled and nonscheduled operations.
2. Maintenance of equipment—responsibilities, procedures, facilities, inspections.

D. Planning (operational).

Personnel, equipment, and supply requirements; capabilities and capacities; communication procedures.

E. Operations.

Operational procedures and control; utilization of personnel, equipment, and facilities; priorities; coordination; documentation; records and reports; service to be given personnel and cargo.

F. Maintenance.

Responsibilities and procedures for maintenance; regulations, reports, and records.

G. Supply.

Responsibilities; authorized levels; procedures and accounting methods for the US Air Force.

H. Intelligence.

Responsibility for collection, collation, evaluation, and dissemination of air transportation intelligence.

I. Security.

Responsibilities, plans (disaster and defense), area equipment and supply security.

J. Records and reports.

Responsibility—technical and operational; personnel and stock records and reports.

K. Training.

Responsibility—unit and technical training.

Part D. FIELD INSTALLATIONS

I. WATER TERMINALS

A. General.

1. Implementation of command policies and directives concerning command; technical supervision and operational control of installations, facilities, and operations to provide a basis for water terminal SOP's.

2. Coordination with Military Sealift Command (Navy). Responsibilities for coordination measures with Military Sealift Command on movement and administration of vessels.

B. Operations.

General policies and procedures for the operation of water terminals to include berthing, loading, and discharge of vessels; in-transit storage; preparation and execution of clearance programs; operation of staging areas; enforcement of priorities; evacuation; and liaison with appropriate water terminal director.

C. Maintenance.

Responsibilities and policies for maintenance of facilities and equipment.

D. Supply.

Implementation of command policies and directives on water terminal supply procedures to include established stock levels.

E. Security.

Implementation of command policies and directives on preparation and execution of installation defense plans; security measures for supply and personnel movements through the water terminals.

F. Communications.

Implementation of command policies and procedures for the installation, operation, and maintenance of communication facilities and equipment.

G. Records and reports.

Responsibilities for maintenance of specific records and preparation and submission of reports.

II. TRANSFER POINTS AND OTHER SPECIAL TRANSPORTATION ACTIVITIES

A. General.

Types, basis for requirement, responsibilities, and procedures for establishment and operation.

B. Command.

General statement of command designation, and responsibilities for command and administration, as appropriate.

C. Labor.

Responsibilities and methods of procurement and utilization; reference to appropriate provisions of this SOP.

D. Documentation.

Responsibilities, methods, and procedures for preparation and distribution of documentation.

E. Operations.

General coverage of operational policies, methods, and procedures which should be routine and standard at all transfer points.

F. Communications.

Procedures and responsibilities for requesting, furnishing, and maintaining communication facilities and equipment.

G. Security.

Reference to appropriate provisions of this SOP or other command directives.

H. Records and reports.

Responsibilities and methods for maintenance of specific types of records; reference to reports to be submitted.

III. TRANSPORTATION MOVEMENTS OFFICES

A. General.

1. Implementation of command policies and directives for the establishment and functioning of transportation movements offices.

2. Policies concerning employment, command, and operational control of movement control units.

3. Locations of transportation movements offices; areas of responsibility of each transportation movements officer, with overlays as appropriate.

B. Operations.

Reference to provisions of this SOP as applicable; extent of authority for supervision of movements; coordination measures with transport services, shippers, and receivers.

C. Communications.

Procedures and responsibilities for requesting, furnishing, maintaining, and operating communication facilities and equipment.

D. Security.

Reference to appropriate provisions of this SOP or other command directives.

E. Records and reports.

Responsibilities and methods of maintenance of specific records; reference to reports to be submitted.



INDEX

	Paragraph	Page		Paragraph	Page
ACS, Movements			Communications	1-9c	1-16
Basic staff guidance	3-2-3-6	3-1-3-5	Engineer and signal support units	1-8c	1-14
Locations	3-7-3-14	3-5-3-6	Engineer support	1-9h	1-19
Staff functions	3-4	3-3	Maintenance services	1-9f	1-18
Staff organization	3-3	3-3	Medical support	1-9i	1-19
Staff responsibilities	3-6	3-5	Mission	1-8a	1-14
ADP system	1-7i	1-12	Military police support	1-9j	1-19
Air defense artillery brigade	1-5e	1-6	Operations	1-9	1-16
Air transport			Organization	1-8b	1-14
Basic considerations	7-1	7-1	Personnel and administrative support	1-9d	1-16
Service	2-10a	2-14	Supply and service support	1-9e	1-16
Type units	7-2-7-5	7-1-7-2	Support brigades	1-9b	1-16
Aircraft maintenance and supply	2-12a	2-15	Transportation service	1-9k	1-19
Ammunition supply and service—FASCOM	1-9g	1-18	Highway regulation		
Ammunition service—TASCOM	1-7f	1-12	Function	4-13	4-10
Area support command	1-5c (2), 1-6c, 1-7a	1-6, 1-8, 1-10	Services	2-9b	2-14
Army security agency	1-5h	1-8	Terminology	4-14	4-11
Armywide services	1-9a	1-16	Traffic headquarters	4-15	4-11
Cargo documentation	10-9	10-3	Inland waterway	2-10d	2-15
Civil affairs brigade	1-5g	1-6	International transportation agreements		
Civil affairs support—TASCOM	1-7o	1-14	Discussion	2-14—2-15	2-16—2-17
Communications—FASCOM	1-9c	1-16	Index of agreements	App C	C-1
Communications security for transportation units	10-3	10-1	Joint military transportation board	2-2c	2-1
Communications support—transportation units	10-2	10-1	Maintenance services—FASCOM	1-9f	1-18
Construction support of transportation units	10-4	10-2	Maintenance system—TASCOM	1-7e	1-12
Convoy security	10-6	10-2	Marine maintenance	2-10d	2-15
Definitions			Materiel command	1-7d	1-11
ACS, movements	1-3a	1-1	Medical command	1-7m	1-13
Inventory in motion	1-3h	1-2	Medical support—FASCOM	1-9i	1-19
Logistics intelligence file	1-3i	1-2	Medical support—TASCOM	1-7m	1-13
Mode operations	1-3e	1-2	Military intelligence group	1-5f	1-6
Movement control	1-3c	1-2	Military intelligence support	1-7l	1-13
Movements management	1-3b	1-2	Military police support—FASCOM	1-9j	1-19
Terminal operations	1-3f	1-2	Motor transport		
Throughput	1-3g	1-2	Basic considerations	5-1	5-1
Traffic management	1-3d	1-2	Service	2-10b	2-14
Engineer command	1-7k	1-13	Type units	5-6-5-16	5-3-5-7
Engineer service—TASCOM	1-7k	1-13	Motor vehicle maintenance support	2-12b	2-15
Engineer support—FASCOM	1-9h	1-19	Movement control centers		
Field army support command	1-8	1-14	Corps support brigade	4-10	4-9
Ammunition and supply services	1-9g	1-18	FASCOM	4-9	4-9
Armywide services	1-9a	1-16	TASCOM	4-7	4-6
Civil affairs	1-9l	1-20	Movement control terminology	4-2	4-1
Command and staff relationships	1-8d	1-14			

	Paragraph	Page
Operational security	10-10	10-4
Personnel and administrative support—FASCOM	1-9 <i>d</i>	1-16
Personnel and administrative support—TASCOM	1-7 <i>c</i>	1-11
Personnel command	1-7 <i>c</i>	1-11
Principles of movements	3-15—3-19	3-6—3-7
Principals of transportation	3-15—3-19	3-6—3-7
Rail security	10-7	10-3
Rail transport		
Basic considerations	6-1	6-1
Service	2-10 <i>c</i>	2-14
Type units	6-2—6-9	6-2—6-3
Railway maintenance	2-10 <i>c</i>	2-14
Rear area protection—TASCOM	1-7 <i>p</i>	1-14
Rear area protection—transportation units	10-5	10-2
References	App A	A-1
Review comments	1-2	1-1
Security		
Communications	10 3	10-1
Convoy	10-6	10-2
Operational	10-10	10-4
Rail security	10-7	10-3
Rear area protection	10-5	10-2
Water terminal	10-8	10-3
Supply and services—FASCOM	1-9 <i>e</i>	1-16
Supply levels—FASCOM	1-9 <i>e</i> (2)	1-16
Supply system—TASCOM	1-7 <i>d</i>	1-11
Support brigades—FASCOM	1-9 <i>b</i>	1-16
Support services to transportation units	10-1—10-10	10-1—10-4
Stability operations	1-7 <i>n</i>	1-13
Standing operating procedures	App C	C-6
Strategic Communications Command (STRATCOM)	1-5 <i>d</i>	1-6
Technical intelligence—transportation	2-13	2-16
Terminal operations	9-1—9-7	9-1—9-3
Terminal units		
Basic considerations	9-1—9-8	9-1—9-3
Service	2-11	2-15
Type units	9-8	9-3
Theater army		
Air defense artillery brigade	1-5 <i>e</i>	1-6
Civil affairs brigade	1-5 <i>g</i>	1-6
Combat zone	1-4 <i>b</i> (1)	1-2
Command relationships	1-4 <i>a</i> , 1-5 <i>a</i>	1-2, 1-4
Command structure	1-4 <i>a</i> , 1-4 <i>b</i>	1-2
Communications zone	1-4 <i>b</i> (2)	1-4
Field armies	1-5 <i>h</i>	1-8
Military intelligence group	1-5 <i>f</i>	1-6
US Army security agency	1-5 <i>h</i>	1-8
US Army Strategic Communications Command (USA-STRATCOM)	1-5 <i>d</i>	1-6
TASCOM	1-5 <i>c</i> —1-6	1-4—1-8
Territorial organization	1-4 <i>b</i>	1-2

	Paragraph	Page
Theater army reserve forces	1-5 <i>i</i>	1-8
Theater army communications system	1-7 <i>b</i>	1-11
Theater army reserve forces	1-5 <i>i</i>	1-8
Theater army support command (TASCOM)	1-6	1-8
ADP system, combat service support	1-7 <i>j</i>	1-13
Ammunition service	1-7 <i>f</i>	1-12
Chemical, biological, and radiological combat service support	1-7 <i>g</i>	1-12
Civil affairs support	1-7 <i>o</i>	1-14
Command relationships	1-6 <i>d</i>	1-8
Communications system	1-7 <i>b</i>	1-11
Engineer service	1-7 <i>k</i>	1-13
Functions	1-6 <i>b</i>	1-8
Maintenance system	1-7 <i>e</i>	1-12
Management	1-7 <i>h</i>	1-12
Medical support	1-7 <i>m</i>	1-13
Military intelligence support	1-7 <i>l</i>	1-13
Mission	1-6 <i>a</i>	1-8
Operations	1-7	1-10
Organization	1-6 <i>c</i>	1-8
Personnel and administrative support	1-7 <i>c</i>	1-11
Rear area protection	1-7 <i>p</i>	1-14
Stability operations	1-7 <i>n</i>	1-13
Supply system	1-7 <i>d</i>	1-11
Theater army transportation services		
General	2-1	2-1
Transportation organization	2-3	2-2
TASCOM	2-3 <i>a</i>	2-3
FASCOM	2-3 <i>b</i>	2-3
Independent forces	2-3 <i>c</i> , <i>d</i>	2-3
Transportation staff elements	2-2	2-1
Transportation annex-administrative/logistics order	3-26	3-11
Transportation brigade	2-6	2-10
Transportation command	2-5	2-8
Transportation composite group	2-7	2-11
Transportation headquarters units	2-4	2-8
Transportation brigade	2-6	2-10
Transportation command	2-5	2-8
Transportation composite group	2-7	2-11
Transportation—joint military board	2-2 <i>c</i>	2-1
Transportation management service	2-9	2-13
Transportation movement control agency	4-4	4-4
Transportation movement control center (FASCOM)	4-5	4-5
Transportation movement control center (corps support brigade)	4-6	4-5

	Paragraph	Page		Paragraph	Page
Transportation movement control offices			Rail transport	6-1	6-1
Air terminal	4-12	4-10	Terminal	9-1-9-7	9-1-9-3
Corps support brigade	4-11	4-10	Water transport	8-1	8-1
FASCOM	4-11	4-10	Transportation technical intelligence	2-13	2-16
TASCOM	4-8	4-8	Transportation units		
Transportation movements	2-9a	2-13	Air transport	7-2-7-5	7-1-7-2
Transportation plan, format	App C	C-1	Motor transport	5-6-5-16	5-3-5-7
Transportation planning	3-20-3-27, 3-7-3-11, App C	C-1	Movement control	4-3-4-6	4-3-4-5
Transportation service—			Rail transport	6-2-6-9	6-2-6-3
FASCOM	1-9k	1-19	Terminal	9-8	9-3
Transportation services			Water transport	8-2-8-8	8-2-8-3
Air transport	7-1	7-1	Water terminal security	10-8	10-3
General	1-7j	1-13	Water transport		
Highway regulation	4-13-4-17	4-10-4-13	Basic considerations	8-1	8-1
Motor transport	5-1-5-5	5-1-5-3	Inland waterway service ..	2-10d	2-15
Movement control	4-7-4-12	4-6-4-10	Type units	8-2-8-8	8-2-8-3



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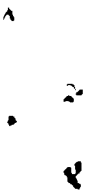
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